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ABSTRACT

This report contains the materials that were developed during a project to make middle-grade students more aware of high tech careers through the following activities: (1) teacher and student visitations of community sites to explore high tech careers in 15 occupational clusters; (2) exploratory activities to facilitate linkages and articulation among the various levels of vocational and career training; (3) efforts to merge school and business resources, thereby enabling teachers to establish relationships between their subject discipline and its practical application in the work environment; and (4) inservice training for teachers to improve the quality of instruction and to facilitate development of student instructional units covering high tech careers. The following items are included in the package: a complete project summary; inservice lesson plans dealing with parental job shadowing, computer literacy, computer programming in BASIC, and the use of commercial software (such as Apple LOGO, Bank Street Writer, and Apple Writer); inservice evaluation forms; and a project expenditure report. Each inservice lesson plan includes some or all of the following: objectives, an activity, suggested references, instructional text, and various forms and surveys for use in presenting the topic addressed in the lesson to students. Appendixes to the report contain a management plan, a staff survey, and miscellaneous project-related correspondence. (MN)

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FINAL REPORT

OF

INTRODUCTION TO VOCATIONS
HIGH TECH FOCUS

1984-85

WAYNE TOWNSHIP SCHOOLS
50 NELLIS DRIVE
WAYNE, NEW JERSEY, 07470

201-694-8600

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JUNE 30, 1985

CE042454

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IDENTIFICATION NO. _____ AMOUNT FUNDED _____

FUNDED UNDER SECTION _____ OF P. L. 94-482

PROJECT TITLE: _____

LEGAL NAME OF APPLICANT DISTRICT, INSTITUTION OR AGENCY: WAYNE TOWNSHIP BOARD OF EDUCATION

ADDRESS: 50 NELLIS DRIVE

WAYNE, N. J. ZIP CODE: 07470

PROJECT DIRECTOR: PASQUALE RATTA

TELEPHONE NUMBER: (201) 694-8600
(Area Code)

ABSTRACT

DESCRIPTION OF PROJECT

(Use this sheet and no more than one other to type in single-spaced form a statement of project objectives, procedures to be followed, state and local priorities emphasized and the expected contribution of the project to vocational education.)

This proposal addresses the need to extend to middle school students grades 6-8, thru Introduction to Vocations, an awareness and exploration of high tech careers as they relate to the 15 occupational clusters. This exploration program can facilitate linkages or articulation for students between levels. It is also designed for teachers to establish relationships between their subject disciplines and its practical application in the work environment. It also addresses non-traditional career exploration by merging school/business resources.

Teachers and students will visit community sites which will provide an awareness of the work environment of high tech applications in the American enterprise system. Student involvement will be thru parental shadowing. This exploration will assist participants in identifying techniques and competencies which relate to curriculum objectives and subject areas.

This proposal responds to priorities established at both Federal and State level relating to the field of high tech careers. It also provides for in-service training for vocational education teachers to improve the quality of instruction. The expected contribution of the project to vocational education would be realized in having instructional units relating to high tech careers and student participation in the C.R.E.A.T.E. (Career Related Experiences Applying Technical Education) Program where students participate in application of classroom instruction in a work environment.

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(DISCLAIMER PAGE) do not include title in Final Report

This project reported herein was conducted pursuant to a contract from the New Jersey Department of Education, Division of Vocational Education and Career Preparation. It was funded under Section_____of Public Law 94-482.

Project Duration:

8-1-84
Beginning Date

6-30-85
Ending Date

The Contractors undertaking this project were encouraged to express fully their judgments in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official funding agency positions or policies.

RATIONALE FOR PROPOSAL

Schools nationwide have become impersonal as they have grown in size. Meanwhile, instruction has tended to emphasize content of academic disciplines without relating content to the personal learning goals of students. Many teachers have not seen the development of individual values and attitudes of career options as integral components of their disciplines. Teenagers have become increasingly separated from adults, and as a result delayed in their opportunity to learn adults' roles, work habits, and skills.

Rubin[1] tells us, "schooling must meet the needs of society, and better educational practice necessitates constant readjustment now and in the future." Therefore, the career education Introduction to Vocations High Tech model should address the need for and develop an understanding of students' societal needs, enabling students to see value in the learning process. To accomplish this goal teachers must internalize through related in-service training units how integration of Introduction to Vocations High Tech infusion can occur.

High technology has emerged as a high priority both at the federal and state levels. This implies that schools must in their planning provide an opportunity for students to begin the sequential developmental steps for the identification of school subjects which will assist them in preparing for their vocational/career choice. The C.R.E.A.T.E. component of grades 6-8 Introduction to Vocations model can achieve this goal. The N. J. Department of Vocational Education and Career Preparation identified the following goals as funding priorities under the Career Education Incentive Act, P.L. 95-207.

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[1]Louis J. Rubin, Professional Supervision for Professional Teachers, Association for Supervision and Curriculum Development, Edited by Thomas J. Sergiovanni, 1975, p. 41.

1. Students will increase knowledge of career and occupational information.
2. Students will improve their understanding of the relationship between education and career choice.
3. Students will improve career planning and decision-making skills.

As an integral part of education, Introduction to Vocations High Tech activities provide students an opportunity to become aware, explore, and begin preparation for their career choice in the present day work environment.

The above may be achieved through meaningful activities in the classroom. Students can gain basic knowledge about themselves by relating curriculum to specific high tech career areas which may not otherwise be available. Participation in the Introduction to Vocations High Tech curriculum will assist students to gain basic knowledge about themselves by relating experiential activities to specific vocational/career areas, which may otherwise not be available.

Based on previous experience the Wayne Career Education Program staff identified the following needs when implementing innovative programs:

1. Staff development training must focus on specific teaching tasks and on classroom situations in which they normally occur.
2. Developmental exercises should be planned to meet particular goals.
3. Personnel training must offer cumulative practice in developing technical skills.
4. Personnel training must familiarize participants with activities that can be used to diagnose student learning needs.

I. NEED AND PROBLEM

This proposal addresses the need to extend to middle school students grades 6-8 thru Introduction to Vocations an awareness and exploration of new and emerging occupations related to high tech careers. The proposal will relate activities to the 15 occupational clusters.

Exploratory activities developed by participating staff can facilitate linkages or articulation for levels of education. It will provide for the development of new activities as well as implementation of existing successful units and materials which are free of sex bias/stereotyping available from federal/state/local/commercial sources. It is aimed at improving the quality of the exploration component of career education through in-service training, field experiences for teachers and parental shadowing for students.

The proposed project will demonstrate the utility of specific learning experiences in terms of their effectiveness with students and staff, and their ease of transportability with and among LEA's.

The effects of inflation and budget caps have placed serious constraints in that cost of instruction and salaries suffer, fixed charges being an area which cannot be reduced. Instilling aspects of career development into vocational classrooms responds to the need to redirect and change present educational and traditional stereotypes, and we need financial help to accomplish this goal.

The vocational education priorities listed in How to Submit a Proposal, P.L. 94-482 (pages 13-15) are met by this proposal. These priorities are:

A.5 Programs and projects to familiarize elementary and secondary students with the broad range of occupations for which special skills are required and the requisites for careers in these occupations.

B.11 Develop programs which emphasize the integration of mini- and micro-computers with vocational education programs.

In a report of the ORT Program contained in the Annual Report of the New Jersey Advisory Council on Vocational Education, 1977, Bagan[2] states: "The common core that seems to be prevalent throughout ORT philosophy is that each person has worth and that in the proper atmosphere they can be surrounded by the assurance of their value and thus can and will succeed."

Bailey and Stadt[3] claim, "the systematic attempt to provide self-development exercises at the elementary school level implies a belief that self-concept development is important in career decision making."

Student Awareness of Self Need Based On:

Profile of High School Students--A Longitudinal Study. Conducted by the N. J. State Department of Education, Division of Research, Planning, and Evaluation. Total N. J. Respondents: 60230.

PERCENT.

88.4 Reported that their own feelings are very important in choosing their high school program.

75.9 Indicated that being able to find steady work is very important to them in their lives. (Inference is that females as well as males consider work important.)

Percentages below held each of the following very important in deciding the kind of work planned for most of their lives.

55.8 Chances for promotion and advancement.

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[2]Jack Bagan. Annual Report of the New Jersey Advisory Council On Vocational Education, 1977, p. 59.

[3]L. J. Bailey and R. Stadt, Career Education: New Approaches to Human Development. McKnight Publishing Co., Bloomington, Illinois, 1973. p. 57.

PERCENT	
39.7	Work similar to hobby or interest.
57.8	Freedom to make own decisions.

Based on the Student Needs Assessment, the following conclusions can be made as they pertain to this Request for Proposal.

Students:

The relationship between course selection and adequate vocational/career information is important.

Students subscribe to the need for more vocational/career planning.

Those who have had field experiences outside the classroom highly recommend that more students become involved.

Teachers:

The following statements were made by teachers when responding to survey for identifying in-service participants.

"I have experience in career education and would like to develop curriculum and share my work."

"I would be happy to participate in this worthy endeavor."

"In the cyclical reading course I teach to 8th grade which consists of reading study skills we have a unit on How to Read the Newspaper. We use classified ads for job opportunities. I would really enjoy doing more of this as I feel it has very important practical application and provides realism in the classroom. Response by students has been enthusiastic."

II. RELATED RESEARCH

The Wayne Career Education Staff was invited to attend the U. S. House of Representatives Northeast-Midwest Congressional Coalition Conference held in Philadelphia on February 22-23, 1982. Focus was on lagging United States productivity, the quality of production of goods, economic development, and

the need for human resources or trained personnel at a time of under-employment--a time of acute shortages accompanied by much unemployment.

Meetings were attended by Adrian Van Zweden, Director of Career Education, and Thomas Hudak, Field Experience Coordinator of the Wayne staff. With the National Association for Industry-Education Cooperation (NAIEC) and the Northeast Industry Education Labor Alliance as co-hosts, the conference was designed to form partnerships among government, labor, industry, business, and education groups.

Dr. Donald M. Clark, NAIEC President, stated that "schools will continue to be viewed by industry as the best and more equitable institutional form for education and training youth for productive employment." Business feels that it has a fundamental stake in the success of our educational system and the success of its educators because their success as managers and as parents depends on the quality and training of students companies are able to hire. Public and private partnerships are considered to be a significant factor in providing solutions to labor and training needs.

The U. S. Chamber of Commerce has developed suggestions for school/business/industry collaboration. Excerpts from USOE Monograph Chambers of Commerce and Career Education that relate directly to this field extension proposal follow:

"One of the greatest needs of business is a well trained work force--particularly in this age of a shortage of skilled workers.

"Participants in a Chamber of Commerce seminar seemed to be agreed on the point that local chambers of commerce could play a helpful role in career education through stimulating and participating in programs aimed at giving educators some bonafide experience in the private enterprise system. It appeared obvious to these participants that many, many teachers

are in need of this kind of experience--far more than could reasonably be accommodated in any given community. General concensus appeared present that whatever efforts are undertaken should be organized in such a way that they have a 'multiplier effect' in terms of that teacher's future interactions with students. The desirability and appropriateness of such activities on the part of a local chamber of commerce seemed clear."

The Wayne Career Education staff was also invited to participate at the MEGA Conference, Louisville, Kentucky, June 1983, conducted by American Association of Career Educators. The keynote presentation "Technology and the Changing Labor Market," was made by Mr. Rodney Bower, President of International Federation of Professional and Technical Engineers, and Mr. Thomas Miller, Senior Vice-President of Control Data, Minneapolis, Minnesota.

The general theme of the keynote speakers was the knowledge and information explosion which is the result of new technologies revolution.

Mr. Bower's presentation centered on the replacement of previous manufacturing and information systems being replaced by new technologies. The technology he referred to was the computer explosion. He stressed the need for cooperation among all groups involved in the new systems approach. This cooperation needs to involve employees' suggestions to bring about change within the systems operations.

Mr. Bower pointed to industry's need thru the 80's for professional technologies. Employment in this area will continue to increase during this period. However by 1990, there will be a surplus of college trained graduates in the professional technologies. A key statement made by the speaker was "Will we control technology, or will technology control us?"

Highlighted in his presentation was the example of a computer based

guidance system which demonstrates communication technology. An outline of communication technologies follows:

.Computer - main frame
.Television
.Teletext
.View deck systems
.Instructional systems
.Video disk
.Direct broadcast satellite
.Microcomputer

The above has influenced the world of work, changed work place skills, and a new trend has emerged--individuals working from home. According to Mr. Bower the role of education should

.Function at a higher level
.Become learning managers
.Include more simulation activities
.Coordinate with industry
.Work with parents
.Encourage and make provisions for educators to be retrained

Mr. Thomas Miller emphasized the rapid growth of high technology by pointing out that 3 years ago software for the micro-computer did not exist, that IBM is presently selling 20,000 personal computers per month. He discussed how the architecture for computers is presently on a silicon chip. Also stressed was the development of new skills thru retraining, which has resulted in education becoming a training evolution.

Mr. Miller cautioned that the future will require that individuals be trained in all high tech areas, not only programmers. The work environment will require operators, analysts, programmers, and technicians. Technicians will be the group of workers with the higher demands, as a transition to a service oriented society continues. This will require educators to develop curriculum materials which will assist our students to meet the needs of new and emerging industries.

The speaker also highlighted the need for active student involvement. Ease of use must be part of courseware design. The immediate feedback is a key element in student use. Also emphasized was the care required in the selection of courseware for implementation; and the cooperation between government, industry, and education.

RESEARCH CONCLUSIONS

1. Local business could play a helpful role in giving educators some bonifide experience in the private enterprise system.
2. Business enterprise wants our educational system to succeed because education can play a vital role in providing solutions to labor and training needs.
3. Education should:
   A. Provide higher level experiences
   B. Coordinate with industry
   C. Encourage and make provisions for educators to be retrained

Although existing career education concepts developed by the Wayne Career Education staff will serve as a base, this proposal differs thru implementation of following innovative concepts:

1. Students in grades 6-8 will be given an opportunity to participate in the after school C.R.E.A.T.E. (Career Related Experiences Applying Technical Education) Program.

   This program, a local effort, is presently in operation within the Wayne School System under the direction of Dr. Henry J. Petersen.

   Student participation is a three-stage process:

   A. Volunteer stage
   B. Stipend stage
   C. Qualifying stage--students recommended for C.I.E. Programs.

2. This program will provide additional technical training for students because of existing expert staff at the C.R.E.A.T.E. Center. Student Survey for participation is included in this report.
3. A technical center model is being developed as a local contribution to provide a work related environment for students wishing to participate grades 6-8. This work related environment will serve to reinforce Introduction to Vocations High Tech activities thru practical application.

III. OBJECTIVES

A. At least 75% of participating teachers will:
   1. Develop and use at least one Introduction to Vocations High Tech unit during the year.
   2. Identify a minimum of two existing units which they will modify for practical application to High Tech.
   3. Adapt or adopt in their curriculum at least two computer literacy education activities or concepts from other sources.

B. 35% Grade 8 students elect the Introduction to Vocations Program at the 9th grade for further career exploration in the career cycles.

C. 95% of program students in grade 8 will complete profile sheet developed in Wayne which relates high tech career/occupational choices to:
   1. Temperaments
   2. Interests
   3. Working Conditions
   4. Aptitudes
   5. Physical Capacities

D. Twenty students will be recommended to participate in the C.R.E.A.T.E. (Career Related Experiences Applying Technical Education). See page 29.

These objectives are significant for vocational/career education because:

1. Feeder schools will be supplying students who have improved decision-making skills to programs of vocational/career preparation. (This is one of the tenets of the Vocational Education Act: That more should be done with youth to develop interests and motivate them prior to entering senior high school.)
2. Substantial articulation will result between the Introduction to Vocations program at the middle school level with career preparation programs at the secondary and post-secondary levels.

IV. PROCEDURES

The following two-credit in-service course would be offered in Wayne, or participating teachers could opt for stipend @ $11.00/hour: Introduction to Vocations High Tech Focus Curriculum Modification.

Middle school teachers will be surveyed by June 22, 1984 to determine their interest to participate and the best time for in-service training (credit or stipend). Appendix B. The data from teachers' responses will determine when the course would be conducted.

Participants will meet for 10 weeks beginning the week of October 1, 1984 and conclude by January 15, 1985. Each class will be two hours in duration. Topical outlines will be found on pages 18-77. While course is in session teachers will be encouraged to begin integrative activities in classrooms with all implementation to be completed by May 1985.

During in-service training these teachers would be responsible for development of Introduction to Vocations grades 6-8 curriculum units which would:

1. Use Introduction to Vocations as a vehicle for reinforcing basic skills thru application to high tech careers.
2. Relate Introduction to Careers to academic learning thru simulation activities.
3. Utilize community resources such as teacher field experiences, student shadowing, and representatives from industry participating in in-service classes.

A total of 15 middle school teachers and counselors will participate in the program. These participants will be responsible for developing high tech activities which include the following occupational clusters:

1. Grade 6 Occupational Clusters: Personnel Services, Communication and Media, Health, Environmental, and Transportation
2. Grade 7 Occupational Clusters: Marketing & Distribution, Fine Arts & Humanities, Hospitality & Recreation, Marine Science, and Construction
3. Grade 8 Occupational Clusters: Manufacturing, Public Service, Agri-Business, Business & Office, Consumer & Homemaking Careers
4. Use of Student Career Planning Folder in all grades. This folder was developed by Wayne Career Education Staff.
5. Student Assessment
   a. Grade 7 Intermediate COPS II
   b. Grade 8 American College Testing-Career Planning Program, Exploring You Interests and Abilities.

Student assessment in Grades 7 and 8 plays a vital role in student course selection in Grade 9. These assessment tools can help students relate their interests and abilities in selecting high school programs in the articulation

process and have a better understanding of their next step options in vocational/career preparation.

6. Use of community resources for teacher field experiences, speakers and student shadowing

As teachers complete units during in-service training, they will start implementing units as part of classroom instruction. This will serve as a basis to critique and develop other units as in-service work progresses. Upon completion of in-service training, a workshop will be conducted to:

1. Summarize accomplishments
2. Disseminate successful units of instruction to LEA and other interested districts

A. General Design

1. The project will run from September 1984 thru June 1985.
2. Participating vocational teachers and guidance counselors will be those who have responded through our needs survey.
3. The Wayne Career Education Advisory Committee and Chamber of Commerce will assist in developing sites for shadowing by teachers and counselors, and resources for in-service training.
4. The Wayne Community Resources Directory will be used by the Field Experience Coordinator to make personal contacts for arranging teacher shadowing.
5. Teachers and counselors will spend a total of 2 days in a specific area related to their classroom subject or assigned duties.
6. Teachers will be expected to supplement lesson plans or units with what they have learned from their experiences during visits.
7. After field testing with students those items considered effective and successful they will be made available to teachers throughout the state through the County Career Education Coordinator, N. J. Curriculum Lab, and RCSU's.
8. Sex bias and sex stereotyping will be noted and addressed in class situations. Furthermore, site visitations in business and industry will be planned so that teachers have an opportunity to observe and talk with persons employed in non-traditional work roles.

9. Counselors will be able to assist students in deciding courses to take by providing current local information that will help them in making educational and career decisions.

10. Fifteen teachers and counselors will participate during the school year in this field extension, and in-service program.

11. A questionnaire will give participants the opportunity to critique workshops and site visits as a basis for improving subsequent activities and experiences.

12. In-service training of participating staff of proposed project would include:

SESSION I - October 9, 1984

Overview of Vocational/Career Education Program Grades 6-8, previous work done, proceudres for field experience participation, student parental shadowing, C.R.E.A.T.E.

SESSION II - October 16, 1984

Computer Literacy overview, problem solving related to computer education, high tech focus, Introduction to Apple - Grade Manager.

SESSION III - October 23, 1984

LOGO--Consultant, Jim Jaeckel. Introduction to LOGO, procedural language, Turtle Geometry, using procedures in programming.

SESSION IV - October 30, 1984

Pre-Programming Part 1, Big Track Activity, documentation of activity, problem solving activity.

SESSION V - November 13, 1984

Word Processing, Bank Street Writer, Menu, Initializing Disk, entering text, making corrections.

SESSION VI - November 20, 1984

Bank Street Writer - continuation of Word Processing, utility programs, use of printer.

SESSION VII - November 27, 1984

Introduction to Basic--Consultant, Paul Jones. Introduction to Basic, coding, terms used in basic programming, coding sheets, write a simple program.

SESSION VII - December 4, 1984

Word Processing Applewriter Pro Dos Word Processing Program, utility programs, similarity to Bank Street, commands, initializing a disk, making corrections, margins, reading of Top Bar.

SESSION IX - December 11, 1984

Implementation of MECC materials--Consultant, Mrs. Elizabeth Carter. Identification of MECC materials for individual teachers, use of documentation.

SESSION X - December 18, 1984

Evaluation of In-service.
See Appendix B.

The preceding outline for in-service program will utilize personnel from the business community to conduct in-service sessions when appropriate, other sessions will utilize Wayne staff who have conducted workshops in computer literacy programs on the local as well as regional levels.

The rationale for the collaboration with the business community is:

1. It allows for using outstanding resources not usually available to a LEA.
2. It enables teachers to become aware of business applications and participate in class activities which have a practical application they can bring to their classroom.
3. It establishes a closer relationship between school/business which may lead to contributions, financial and/or equipment to LEA.
4. It establishes community contacts for placing of students enrolled in Co-Op Programs at the high school level.
5. It is an excellent avenue for keeping abreast of rapidly changing technology.

B. Management Plan

The proposed project consists of in-service and field experience for experienced vocational/career education teachers and counselors who have not had the opportunity to become familiar with the changing technologies in business and industry. Teachers and counselors will become aware of these requirements and relate them to Introduction to Vocations activities through a program of visitation to business and industry. The proposal also addresses student shadowing in the business community through parental participation. It is not expected that the teachers, counselors or students will perform work for reimbursement but they will observe workers performing specific high tech tasks at the various sites. A 10-week in-service program, See Course Outline, Page 15, will be conducted in Wayne. Workshop sessions will highlight integrating high tech activities into their subject discipline.

Grade 6-8 teachers will also recommend students for the C.R.E.A.T.E. Program.

The Project Director will be responsible for coordinating project activities, planning workshops, planning teacher field experiences through the Field Experience Coordinator. Financial and statistical records and reporting will be the responsibility of the Project Director. A final report will be submitted on or before July 30, 1985.

The Project Director will be under the direction of the Wayne Director of Career and Occupational Education who will serve in a consulting and guiding capacity for project implementation.

The description of how the Management Plan relates to project goals, activities and responsibilities is found in Appendix A.

C. Evaluation Plan

The Evaluation Plan for the proposed project will include:

1. An evaluation of in-service program to be conducted at final session.
2. Review Field Experiences Teacher Evaluations, pages 24-26.
3. Identification of units where MECC software was adapted or adopted by subject discipline.
4. Evaluative action and elimination of biases and stereotypes.
5. Student evaluation of shadowing experiences.
6. Student selection of Introduction to Vocations Grade 9.
7. Number of students recommended for C.R.E.A.T.E. Program and their performance in program.
8. Evaluation Survey Sheet for business/industry collaboration (to be developed).
9. Number of middle school teachers wishing to participate in USER's group.

INTRODUCTION TO VOCATIONS
HIGH TECH FOCUS
IN-SERVICE LESSON PLAN

SESSION I

OBJECTIVES: As a result of participating in class teachers will:

1. List and define steps for participation in field experiences.
2. Describe Parental Shadowing Program.
3. Explain C.R.E.A.T.E. Program.

I. Class Calendar--Distribute class calendar for in-service dates.

II. Need for Introduction to Vocations High Tech Focus.

III. Distribute Project Goals and Materials.

IV. Discuss course requirements and handouts.

- A. Two Field Experience visitations.
- B. Three curriculum units.
  Adapt curriculum activity or develop new units.

V. Distribute Career Cluster Outline for Grades 6, 7, 8.

- A. Review procedures for implementation.
- B. MECC material available for subject areas.

VI. Procedures for:

- A. Field Experiences
  1. Professional Leave Request form.
  2. Field Experience "Facts to Know About a Job."
  3. Parental Student Shadowing application.

VII. C.R.E.A.T.E. Program--Discuss handout.

VIII. Career Education support services.

IX. Tentative K-8 Matrix.

LEARNING MODULE
WAYNE SECONDARY SCHOOLS

NAME:

IMPLEMENTATION DATES:

SCHOOL:

SUBJECT:

GRADE LEVEL:

WAYNE EDUCATIONAL GOAL

PROGRAM OBJECTIVE: The student will be able to

CURRICULUM CONTENT	ACTIVITIES (Lesson or Unit Plan. List sequential activities culminating with a student product.)	RESOURCES/SUGGESTIONS (Books, Speakers, etc.)

EVALUATION:

K	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5	GRADE 6	GRADE 7	GRADE 8
Paper Keyboard Introduction to Keyboard (Alphabet and Numbers)	Paper Keyboard Activity-Color Keys for Correct Finger Typing Introduction to Computer Hard-ware Activity-The Friendly Computer Blissymbolics Introduce Booting System	Paper Keyboard Apple Presents Spelling Lists Spell Mixup	Early Addition Elementary Vol. 4 Math Elementary Vol. 1 Language Arts Curriculum Career Activities Introduction to Logo Geometric Shapes	Logo Activities Re Social Studies Math Histograms Elementary Vol. 4 Math Elementary Vol. 5 Language Arts Elementary Vol. Social Studies Introduction to Bank Street Writer Economics for Young Americans	Reinforce Bank Street Writer Logo Activities Use of Computer In Writing a Narrative Newspaper Activity Economics for Young Americans Pre-programming Big Track Introduction to BASIC	Implementing Bank Street Writer using 5 Clusters as base for data collection (files) Writing a narrative Continue BASIC instruction	Introduction to Apple Writer 5 Clusters as base for Apple Writer data collection Intermediate BASIC (Math classes) MECC Material for subject areas Introduction to Graphics (LOGO, BASIC)	Reinforce Apple Writer BASIC 5 Clusters data collec-tion and files MECC materials for subject areas Introduction to Business Graphics (Math applica-tion) Introduction to electronic spread sheets

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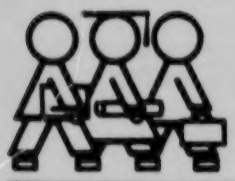
CLASS CALENDAR

The meeting dates for the Introduction to Vocations High Tech Focus In-service Program are as follows:

Session I	October 9, 1984
Session II	October 16, 1984
Session III	October 23, 1984
Session IV	October 30, 1984
Session V	November 13, 1984
Session VI	November 20, 1984
Session VII	November 27, 1984
Session VIII	December 4, 1984
Session IX	December 11, 1984
Session X	December 18, 1984



Wayne Career Education Program

50 Nellis Drive, Wayne, New Jersey 074

Dear_____

Several school districts have found that in exploring careers students can benefit by spending a day or part of a day closely observing a person at work. This is an integral part of career development known as "Shadowing." This experience provides students with knowledge of and insight into different careers. They have a chance to ask questions which can aid in the career decision making process. Seeing things in a real life setting tends to make learning more meaningful.

In many cases parents are taking their children to their own places of employment to spend time with them or arrange to "shadow" another employee in the company. Where this is being done students are required to make up work missed while out of school. Resourceful teachers have been able to base lessons in basic communication skills around the motivation that students brink back to the classroom.

If you and your place of employment are willing to cooperate in this field experience for your child, please complete the following section. This will allow us to facilitate further plans.

Sincerely,

_____ _____

Teacher Principal

_____ DATE_____

Student's Full Name

I have made arrangements and will provide transportation for my son/daughter to accompany me to my place of employment _____

Company Name

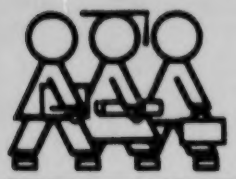
on _____. He/she will be observing the following persons:

Date

NAME_____ CAREER AREA_____

NAME_____ CAREER AREA_____

PARENT SIGNATURE_____



Wayne Career Education Program

50 Nellis Drive, Wayne, New Jersey 07470

Dear_____

We are so pleased that your son/daughter (name)_____ was able to participate in the Shadowing Program at Schuyler-Colfax Junior High School.

We feel that this experience has enabled our students to acquire a basic understanding of career opportunities and an awareness of the skills necessary to enter these careers. As the students were responsible for reporting their learning through research and first-hand experiences, they were able to accept responsibility for their own work. This is evidenced by the final report completed by each student. A copy of your child's report is enclosed.

Thank you for allowing_____ to participate in this career exploration experience.

Very sincerely yours,

_____
William Megnin, Principal

_____
Pasquale Ratta, Career Education Program

_____
Paul Jones, Teacher

WAYNE CAREER EDUCATION PROGRAM

FIELD EXPERIENCE CHECKLIST

FACTS TO KNOW ABOUT A JOB

OCCUPATION TITLE_____

1. Outlook:

   A. Is there a demand today?_____

   B. Is an increase or decrease expected?_____

2. Nature of work:

   A. What is a typical day?_____

   _____

   B. Important responsibilities?_____

   _____

   C. Less glamorous details?_____

   _____

   D. Physical demands?_____

   _____

3. Work environment:

   A. Surroundings?_____

   _____

   B. Exposed to any unusual conditions?_____

   _____

4. Qualifications?

   A. Age?_____

   B. Physical?_____

   C. Aptitudes?_____

   D. Interests?_____

   E. License or certificat(s)?_____

5. Unions - Trade - Professional Associations:

   A. Requirements of entrance_____

   _____

6. Preparation:

   A. What is required?_____

   _____

   B. What is desired?_____

   _____

   C. Cost?_____

   _____

   D. Can a list of approved schools be obtained?_____

   _____

   E. If professional school is needed, what kind of high school or college program should precede?_____

   _____

   F. Apprenticeship or on-the-job training?_____

   _____

   G. Is experience a requirement?_____

   _____

7. Entrance:

   A. How to get first job?_____

   _____

   B. Examinations?_____

   _____

8. Advancement:

   A. To what can one advance?_____

   _____

   B. What proportion of workers advance?_____

   _____

   C. After how long and after what additional preparation?_____

   _____

9. Earnings:

   A. Average starting salary?_____

   B. Average salary after 5 years?_____

   C. Earnings higher or lower in certain parts of the country?_____

10. Distribution of workers:

   A. Can occupation be practiced anywhere?_____

   _____

   B. Majority employed by private industry, government or other organizations?

   _____

   _____

11. Advantages and disadvantages:

   A. What is liked the best?_____

   _____

   B. What is disliked the most?_____

   _____

   C. Regular hours and work week?_____

   _____

   D. Vacations and fringe benefits?_____

   _____

   _____

   E. Steady, seasonal, or irregular employment?_____

   F. Can skills be transferred to other occupations?_____

   _____

   G. Compared with other occupations that require the same level of ability and training, in what ways is this one more or less attractive?_____

   _____

   _____

   _____

WAYNE CAREER EDUCATION PROGRAM

SHADOWING: FINAL QUESTIONNAIRE

NAME:_____ DATE:_____

1. Did you go shadowing? Check one. YES____ NO____

2. Is the career you have shadowed or researched appealing to you?
Check one. YES____ NO____

3. If you answered YES to Question Number 2, list five reasons why; or if you answered NO to Question Number 2, list five reasons why not.

_____

_____

_____

_____

_____

4. What is your goal(s) in life?_____

_____

Can this career cluster help you reach this goal(s)? YES____ NO____

5. List 5 (five) characteristics (educational, skills, training, personality traits, abilities) which are required in the career you shadowed or researched:

_____ _____

_____ _____

_____

6. How has your academic learning background prepared you in any way for the career you researched or shadowed? YES____ NO____

a. What additional skills or abilities do you need for this occupation?

b. If the answer to Question Number 6 is YES, what specific courses have you taken that will help you in this career?

c. If the answer to Question Number 6 is NO, what specific courses should you take in the future which will help you prepare for this career?

7. What kind of additional preparation, if any, beyond high school is required for you to pursue this career? Check One.

_____Private School
_____Community College
_____On-the-Job Training
_____Apprenticeship Program
_____Area Vocational Technical School
_____Four-Year College

SHADOWING: FINAL QUESTIONNAIRE

8. Is the career which you shadowed or researched one which requires a person to:

   a. Work with people as a team? YES_____ NO_____

   b. Work with repetitive tasks? YES_____ NO_____

   c. Work to a deadline? YES_____ NO_____

   d. Be creative? YES_____ NO_____

9. Have you spoken with anyone now employed in this career area? YES_____ NO_____

   a. If you answered YES to Question Number 9, what have they told you that can help you in making a decision as to whether this a career you could be HAPPY WORKING IN?

   b. Are there members of your family working in this career field?

      YES_____ NO_____

   c. If the answer to Question 9.b. is YES, what is their job title?

10. How are the courses you are presently taking related to the career you researched or shadowed? (Such as English, Science, Math, etc.,) List and explain.

C.R.E.A.T.E.

Career Related Experience Applying Technical Education

I N T R O D U C T I O N

C.R.E.A.T.E., a school/business partnership, assists students in preparing for high tech careers. By merging the resources of School Districts, Private Industry Councils, and Regional Centers, through student involvement at regional technology centers C.R.E.A.T.E. provides instruction, training and experience which can help meet business and student needs.

School districts are organizing to support technological education and educational technology. N.A.M.E. is an example of such organization (see related N.A.M.E. materials.) At N.A.M.E. technology centers staff has an opportunity for hi-tech involvement. The technology centers manner by C.R.E.A.T.E. students are the same centers that N.A.M.E. requires for its programs. C.R.E.A.T.E. extracts student career experience from the same facility that N.A.M.E. uses for teacher professional development.

Centers merge expert managers, volunteers, student support staff, and teacher development activities. Supervised students gain qualifying experience while providing the technical labor force necessary to run the center. Qualified students serve the needs of local business for affordable computer employees as part of cooperative industrial education programs.

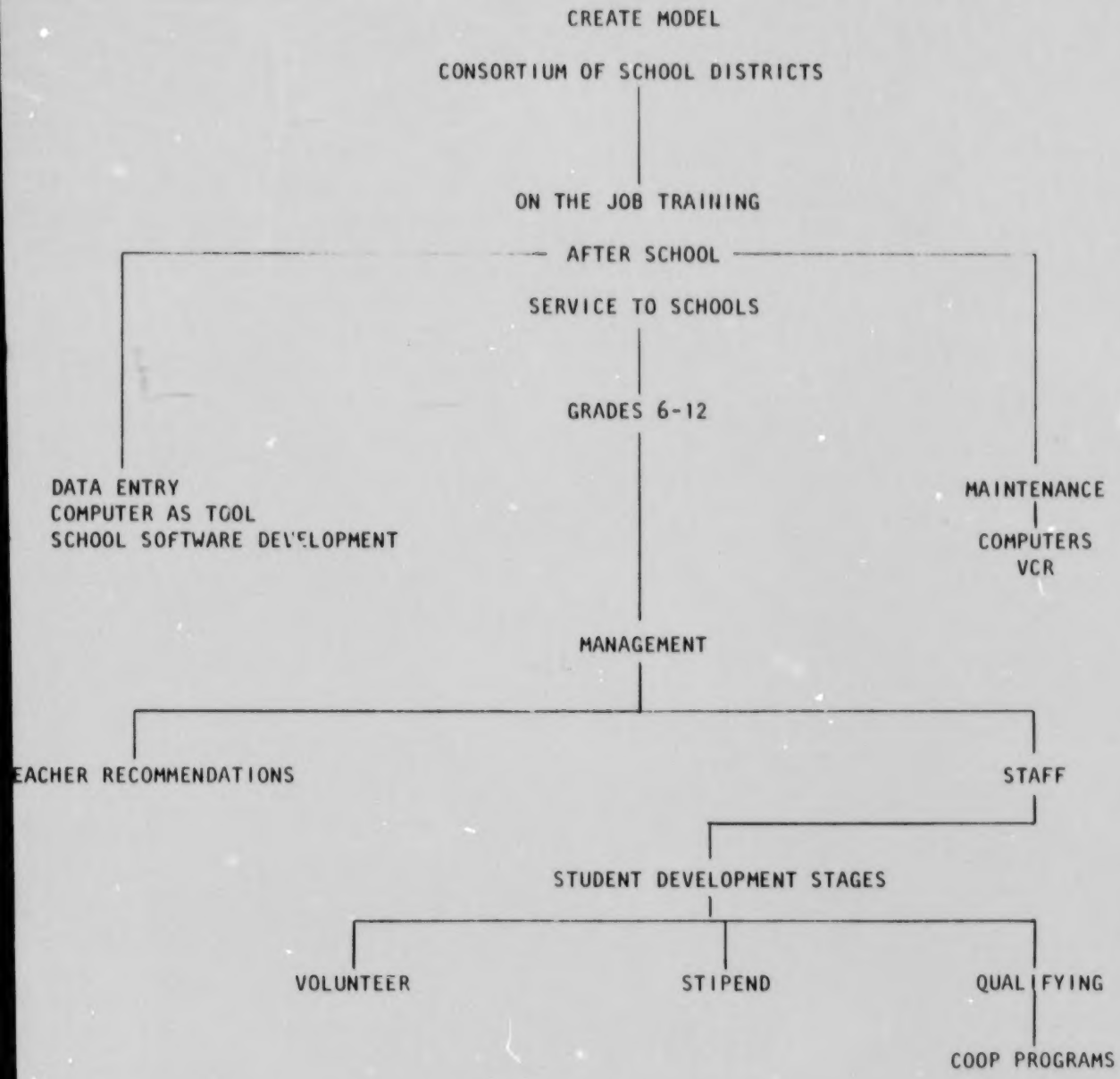
Students who volunteer and are recommended serve as student aides--interconnecting components; interpreting documentation; piloting software; trouble shooting system difficulties; assisting neophytes; diagnosing failures; repairing equipment; receiving and shipping, etc.

Student skills are developed through introductory and regular staff stages to being "qualified". Qualified students gain employment opportunity through local district's C.I.E. programs. Local, small business, trying on personal computers will welcome expert help, even from high school students.

Industry participates on two levels--technical input and capital funding. Private Industry Councils serve in supervisory and advisory roles. The capital needs of the centers are to be met through business fund raising, however, personnel and operating costs are C.R.E.A.T.E. responsibilities.

At this time C.R.E.A.T.E. is in a pilot phase, demonstrating these concepts using Wayne staff and students at the Fallon Educational Center. Expansion to students beyond convenient travel to Wayne requires other regional centers. Establishment of such centers requires regional school/business cooperation for which the Wayne center is intended to be a model.

Contact: C.R.E.A.T.E., 201-696-3157, Fallon Center
51 Clifford Drive
Wayne, New Jersey, 07470


CREATE MODEL
CONSORTIUM OF SCHOOL DISTRICTS
ON THE JOB TRAINING
AFTER SCHOOL
SERVICE TO SCHOOLS
GRADES 6-12
DATA ENTRY
COMPUTER AS TOOL
SCHOOL SOFTWARE DEVELOPMENT
MAINTENANCE
COMPUTERS
VCR
MANAGEMENT
EACHER RECOMMENDATIONS
STAFF
STUDENT DEVELOPMENT STAGES
VOLUNTEER
STIPEND
QUALIFYING
COOP PROGRAMS

C.R.E.A.T.E. PROGRAM

STUDENT WORKER INTEREST SURVEY

1. With what computer equipment have you had experience?

2. Do you own a computer system? YES_____ NO_____

   If YES, what system?_____

3. What types of software have you used?

4. On a scale of one (1) to ten (10), one lowest, rate the areas listed below as to your level interest. Do not consider any lack of experience in these choices.

   _____hardware repair
   _____software
   _____office operation
   _____computer application (non programming)
   _____customer service
   _____product analysis
   _____documentation writing
   _____shipping/receiving
   _____supervision of operations
   _____quality control
   _____accounting

5. What subjects have you taken in school that you feel will help you to do a job at the computer center?

6. What goals do you have for the future when you complete your high school education?

7. How will this program help you achieve these goals?

8. How do you feel you can help in the operation of the computer center?

INTRODUCTION TO VOCATIONS

HIGH TECH FOCUS
IN-SERVICE LESSON PLAN

SESSION II--COMPUTER LITERACY

The choice to implement the lesson as outlined was determined by:

1. Past experience demonstrated need for participants to use equipment as soon as possible to eliminate apprehension of first time users.

2. Demonstrating implementation of high tech applications for each individual for a need they have.--Maintaining student records.

3. How a computer base program can be utilized.

OBJECTIVES: As a result of participating in class teachers will:

A. Outline procedures for booting (starting-up) Apple IIe Computer.

B. List steps to follow (problem solving) to enter a data base program onto diskette.

C. Define following terms:

(1) PR6 - Drive slot on Mother Board.

(2) PR1 - Slot for Printer.

(3) Initialize a disk.

(4) Documentation.

(5) Menu.

I. ACTIVITY--Using a computer data base program--MECC Disk No. A771 GRADE MANAGER--Notify teachers to bring class and grade book to class.

II. INTRODUCTION--Define Program Documentation.

A. Program documentation is a written description of what a program is designed to do and instructions to use the program.

B. Program documentation includes:

1. A description of what the program will allow operator to do.
Ex. Grade Manager--Allow classroom to use either of two grading methods, percentage grading or curve grading.

2. Grade Manager allows teacher to:

a. Determine score categories.

b. Assign weight to scores.

c. Select score intervals corresponding to letter grades.

3. Prints lists of scores and grades by:

   a. Student name.

   b. Student number.

4. Frequency distribution and statistical data can be displayed and printed.

5. Compiles score reports for individual students.

6. Computes and prints quarter, semester, and final grades.

III. Background Information

Prior to using program, you must outline information to enter on a Data Disk. A Data Disk is a disk which you use to input information you wish to record.

The information required for Grade Manager is:

A. Name for each class
   Ex. Social Studies, Pd. 1. of any file code you choose.

B. Class List

C. Number of students in class.

D. Number and kinds of score categories you will use.
   Ex. Quizes, labs, tests, paper, etc.

E. Grading system you will use--percentage or curve grading.

F. Letter grade intervals.

G. Weights assigned to each score category.

IV. Getting Started: Procedure for Booting (starting) System.

A. Insert Program Diskette (Grade Manager) into disk drive (demonstrate).

B. Turn power on for Monitor (demonstrate).

C. Turn power on for Apple IIe (demonstrate).

D. The Monitor screen will display a Menu (define) which will include:

PROGRAMS

1. Class List
2. Grading Method
3. Scopes
4. Compute Grades

5. Print Grades

OTHER OPTIONS

6. Printer Support

7. Diskette Support

Which Number? Cursor.

Make sure caps LOCK KEY is down.

V. Making a Menu Selection

A. Select Option 7. Diskette Support

B. Enter your Password--will appear on monitor.

C. A Password is a code which secures the data (information) you enter on your Data Disk. It is recommended at this point to enter your own Password. The length of the Password is restricted to 7 characters (letters).

D. To enter your Password, type control (CTRL-N)n. The procedure is as follows:

1. Press the control key and hold the key in the down position.
2. As you hold down the CTRL (control) key, type the letter N.

You will be asked to enter your new Password. At this time type your Password and press Return Key. The Menu selection you made--Disketter Support will be activated (brought up) and the files (Menu) for this program will be displayed on the screen.

Diskette Support:

1. View current drive parameters.
2. Set drive parameters.
3. Initialize Data Diskette.
4. Copy Data Diskette.
5. View list of classes.
6. Return to main Menu.

Which Number? Cursor.

Once you have gained access to the files follow instructions as they appear on the monitor.

The above procedure for access to the other program files is the same. Whenever you wish to use Grade Manager you must enter your Password to access a file.

VI. Initialize Data Disk

Initializing a disk means that before any information (data) can be recorded (stored) it must communicate with the program disk and the computer memory. It is the making ready of your Data Diskette.

Select Number 3 from Diskette Support File. Follow the instructions which appear on the Menu. When you initialize a disk, care must be taken to use either:

A. A new Diskette.

B. A Diskette which contains data, but you no longer need.

The process to initialize a diskette will erase (remove) all previous data stored on a diskette.

Upon completion of diskette initialization select Number 6--return to main Menu.

VII. Classlist

A. Select Number 1 from Menu, Classlist. Follow instructions displayed on monitor and insert your Data Diskette into disk drive. Follow instructions. You will see displayed on monitor:

Classlist

1. Create or delete Classlist.
2. Add students.
3. Modify student data.
4. Delete student.
5. Print classlist.
6. Return to main Menu.

Which number? Cursor.

Select Number 1.

B. Create or delete Classlist.

This file allows you to create a class name (subject) and enter student names and student identification number, using your classlist. When size of class is requested, add 10 to actual class size. The monitor will display the following:

Create or Delete Classlist

1. Create a new class.
2. Delete a class.
3. Return to Menu.

Which number? Cursor.

Select Number 1 and follow instructions displayed on monitor. Once a Classlist is entered onto Diskette, you may choose other Menu options found on Classlist to update your file.

Upon compleeting your entries for your Classlist you may wish to check spelling of student names or student number. To check your list select Number 5 from your Classlist Menu "Print Classlist." Follow instructions on monitor. When the monitor displays instruction "DO YOU WANT TO USE A PRINTER?" Answer NO. You will have Classlist displayed on screen in alphabetical order. This will allow you to check list for errors or omissions.

If you notice a misspelled name or incorrect student number, select Modify Student Data Number 3 and follow instructions displayed on the monitor.

If you omitted a student or need to add a new entrant, select Add Student Number 2 and follow instructions displayed on monitor.

When you have completed entering data to your Data Diskette, select Number 6, return to main Menu. Follow instructions displayed on monitor.

C. Grading Method.

This file allows you to choose either a:

1. Percentage grading system
2. Curve grading
3. Letter grade interval
4. Score categories, e.g., quizes, tests, homework, lab., paper, etc.

The following Menu will appear on the monitor:

Grading Method

1. Score categories
2. Letter grade assignments.
3. Return to main Menu.

Which number? Cursor.

Select Number 1, add a score category. The monitor will display the following:

What is the name of the class?

Current List of Class Names

Type in the name (subject) of the Classlist you entered when using No. 1 Classlist. You will be asked to enter the score categories you wish to include for your class. Follow instructions that are displayed on monitor. You may enter up to 8 score categories for each list. Each category may have up to 10 scores entered for each student.

Number 2 of score categories allows you to make corrections if any errors are made when entering data. Follow instructions displayed on monitor if you wish to use Number 2 "Modify a Score Category."

CLASSLIST

TECHNICAL DRAWING 1, PD. 1

Name	Student Number
Agrati, Michael	15432
Bird, Larry	14532
Blethen, Charles	16543
Carter, Charles	17654
Kroener, Thomas	18534
Hudak, Thomas	18652
Jones, Ken	18740
Ryerson, Gordon	18475
Messick, Charles	16375
Graceffo, Joseph	14123
Fitzgerald, Peter	01234
Lokay, George	03124
Breitinger, Robert	04124
Frascatore, John	05342
Sullivan, Dan	01654
Gadjo, Joseph	01653
Ratta, Pat	01652
Young, Jack Dr.	01665
Faley, Judy	12345
Westervelt, Joseph	15678
Wall, Edward	14567

Select Number 2 "Letter Grade Assignment" from Grading Method Menu. The following options are presented.

1. Percentage grading
2. Curve grading
3. Return to Menu

Select 1--Percentage grading and follow instructions displayed on monitor, and make selection.

Select 2--Curve grading and follow instructions displayed on monitor, and make selection.

D. Scores

This file allows you to enter student grades (scores) at various times during the quarter (marking period), obtain a frequency distribution and printouts as desired. Scores allows teacher to:

1. Add scores
2. Edit scores
3. Print scores
4. Return to main Menu

Select Number 1, and follow instructions. The monitor displays the categories selected in "Grading Method." Select category by typing the name. Answer questions which are requested.

Each student name on Classlist will appear on monitor. You will enter student grade, press return and next student will be displayed on monitor. Continue until you have entered grade for all students.

Number 2, "Edit Scores" allows teacher to check entries of student grades for score category.

Number 3, "Print Scores" allows teacher to retrieve scores as outlined in the print scores Menu. These are:

1. Entire class, one set of scores
2. Individual student's scores
3. All scores
4. Letter grade key
5. Return to Menu

After you select a number from print scores follow instructions displayed on monitor to obtain a paper copy of data you entered (student scores).

E. Compute Grades

Select Number 4 "Compute Grades." The monitor will display:

Compute Grades

1. Compute quarter grades
2. Delete current quarter scores
3. Semester exam scores
4. Compute semester grades
5. Final exam scores
6. Compute final grades
7. Return to main Menu

Which number? Cursor.

Select Number 1--Compute quarter grades. Follow the instructions displayed on the monitor. You will be asked to assign a weight to each score category. If you wish to give a score for a particular activity a higher value, you can assign a different weight. For example, if a quarter test will have a value or count for 20% of marking period grade you may want to assign this activity a weight of 2, where all other scores will have a weight of 1. The assigning of weights must be whole numbers. If you seleft any other number from computing grades Menu, follow instructions as they appear on screen.

F. Print Grades

The Print Grades program allows you to obtain a printed (hard) copy of data you have recorded (entered) in the files of the Grade Manager Program.

When this number is selected from the Menu the monitor displays the following options:

Print Grades

1. Print quarter grades
2. Print semester grades
3. Print final grades
4. Print progress reports
5. Return to main Menu

Make a number selection and follow instructions displayed on monitor. Number 4 "Print Progress Reports" allows teacher to enter comments and obtain a printed copy of each report. The report will include all score categories and student score for each assigned category.

G. After class distribute copy of documentation to each class member, for future reference.

INTRODUCTION TO VOCATIONS
HIGH TECH FOCUS

IN-SERVICE LESSON PLAN

SESSION III. INTRODUCTION TO APPLE LOGO

Consultant: Mr. James Jaeckel

OBJECTIVES: As a result of participating in class, teachers will:

1. List steps to boot-up (start) LOGO and list steps to initialize diskette for LOGO.
2. Define following terms:
   a. Procedural language
   b. Turtle geometry

References: Apple Logo, Abelson, Harold; Byte, McGraw Hill
An Introduction to Apple Logo, Computer Mart of New Jersey
Apple Logo in the Classroom, MECC

I. INTRODUCTION

A. Define LOGO

1. Programming language
2. List Procedures--steps for computer to execute

B. Define TURTLE LOGO

1. Geometric shape--triangle
2. Position on screen when LOGO is booted
3. Turtle direction when command is given
   i.e., FD 40 - Turtle will move towards top of screen

C. Define procedural language

1. Combining commands (instructions) to create program
2. Procedures are groups of instructions which communicate among themselves thru the use of INPUTS and OUTPUT.
   a. Inputs are commands (instructions) you enter.
   b. Output is the result seen on screen of program commands (instructions) you entered and have been processed.

D. Demonstration

1. Boot-up (start) system. Show location of turtle and screen.

2. Input commands (instructions). Edit mode. Discuss split screen. Text is shown on bottom 4 lines of screen. Demonstrate turtle movement.

II. BOOTING-UP FOR APPLE LOGO

A. Procedures:

1. Master program diskette

a. Define master diskette

b. Care of master diskette

c. Storage of master diskette

2. Using master diskette

a. Need to keep in good working order

b. Never use to store (file) your programs on master.

B. Initializing Diskette--Go thru procedures with participants.

1. Preparing diskette for LOGO files

2. Insert DOS 3.3 system master in the disk drive

3. When red light on disk drive goes off, remove system master

4. Prepare label with your name and "LOGO", place it on blank diskette.

5. Put blank diskette into disk drive.

6. Type the following (press return after each line)

```
NEW
10 PRINT "THIS LOGO DISKETTE BELONGS TO _____"
20 END
```

7. Type: INIT HELLO

8. Press return key

9. When red light on the disk drive goes off, remove your diskette.

10. Put Apple LOGO diskette into disk drive

11. Reboot system--Press CTRL-OPEN APPLE RESET

    a. Following message will be displayed on the monitor screen:

       PRESS THE RETURN KEY TO BEGIN

       IF YOU HAVE YOUR OWN FILE DISKETTE INSERT IT NOW,
       THEN PRESS RETURN

    b. Screen will display

       WELCOME TO LOGO

12. Remove the Apple LOGO diskette from disk drive and put your diskette into disk drive.

III. SCREEN MODES

A. No Draw Mode. When LOGO is first turned on it is in No Draw Mode.

B. Draw Mode

1. Procedures

a. Type C S - Clear Screen

b. Have split screen

c. Program now ready to draw commands.

d. Edit Mode. Allows you to observe your procedures and change (Edit) any errors.

IV. LOGO COMMANDS

A. Distribute TURTLE GRAPHIC command sheet found on page 45 .

B. Position of Turtle 0, 0 - Center of screen

1. Explain Cartesian Line

2. Set-Pos - use of Cartesian Line

V. ACTIVITY--Have participants execute following commends. Explain each command.

A. HT, Hide Turtle.

B. FD 10, Turtle will move forward 10 units.

C. ST, Show Turtle. Turtle will appear on screen.

D. LT 90, Turtle will rotate to left 90°.

E. FD 20, Turtle will move forward 20 units.

F. RT 90, Turtle will rotate to right 90°.

G. FD 10, Turtle will move forward 10 units

H. LT 90, Turtle will rotate to left 90°.

I. FD 20, Turtle will move forward 20 units.

J. CS - Clear Screen.

VI. CREATING A DEFINITION

A. A definition is identifying (name) a file and write the procedure (instructions) for the Turtle to follow, and create the shape you wish to draw.

B. Exchange - Square

```
? to Square
  FD 10
  RT 90
  FD 10
  RT 90
> FD 10
> RT 90
> FD 10
> RT 90
> END
```

VII. SAVING A PROCEDURE (FILE)

A. Importance of using command at frequent intervals.

B. Procedures: Save above example to Square

1. Type Save " Square
2. Use single Quotation Mark.

VIII. LOADING A PROCEDURE (FILE)

Procedure: Type Load " Square

IX. EDITING A DEFINITION

A. Logo Editor

B. Procedures

1. Type Edit " Square

2. Procedures for square will appear on screen.

3. Edit Commands

a. (CTRL-N) Moves cursor down 1 line.

b. (CTRL-P) Moves cursor up 1 line.

c. (CTRL-A) Cursor to beginning of line.

d. (CTRL-E) Cursor to end of line.

e. (CTRL-B) Back space (no erase).

f. (CTRL-F) Forward space (no erase).

g. (CTRL-D) Erases the character directly under the flashing cursor.

h. (RETURN) Will move to next line.

i. (CTRL C) Leaves the editor and the word is defined and edited.

X. ACTIVITY

A. Initialize a disk.

B. Have participants writer procedure for the first letter of their first and last name.

C. When procedure is completed have participants:

1. Save procedure (File)

2. Load File

3. Use Edit command.

CTRL-N	Moves the cursor down to the next line.
*CTRL-P	Moves the cursor up to the previous line.
RETURN	Moves the cursor and the following text to the beginning of the next line.
*CTRL-A	Moves the cursor to the beginning of the current line
*CTRL-E	Moves the cursor to the end of the current line.
CTRL-B	Moves the cursor one space backward (to the left).
CTRL-F	Moves the cursor one space forward (to the right).
*CTRL-D	Erases the character directly under the cursor.
	Erases the character to the left of the cursor.

TURTLE GRAPHICS

COMMANDS:

FD	- Forward Turtle
ST	- Show Turtle
HT	- Hide Turtle
BK	- Backwards Turtle
PD	- Pen Down (draw)
PU	- Pen Up
SET PC	- Pen Color (1 -- 6) Colors: 1 - White 2 - Green 3 - Violet 4 - Orange 5 - Blue
PE	- Pen Erase
CS	- Clears Page
RT	- Turn Turtle to the Right
LT	- Turn Turtle to the Left
FENCE	- Border around screen (invisible)
WRAP	- Can wrap around screen
WINDOW	- Can go off the screen and come back on
TEXTSCREEN	- Show text screen (CRTL T)
STOP	- Stops action (CRTL G)
CLEARTEXT	- Clears Page
FULLSCREEN	- Graphics (CTRL L)
SPLITSCREEN	- Bottom 4 lines text (CRTL S)
ERPS	- Clears all Definitions
POPS	- Shows all Definitions
PR	- Printing text on screen. Place text between [ ].
SETBG	- Set back ground color (1 -- 6).
POTS	- Titles of Definitions.
PO "Name	- Lists the Definition.
ERASE "Name	- Erases the Definition.
CS	- Puts the turtle in the middle of the screen.
SETPOS [x y]	- Sets position of turtle.

INTRODUCTION TO VOCATIONS
HIGH TECH FOCUS

In-Service Lesson Plan

SESSION IV. Pre-Programming

OBJECTIVE: Given a problem for Big Track, participants will list steps on flow chart and run Big Track Program.

REFERENCES: Big Track Operato:s Manual, Anderson, Ronald E.; The Road to Computer Literacy: A Programmable Toy Paves the Way; Electronic Learning. 1981, Scholastic, Inc.

I. Introduction

A. Define Program--A program is an organized set of instructions to solve a given problem.

B. Define Problem Solving--Problem solving is the listing of components, an outline of steps to follow when organizing information to solve a given problem.

II. Distribute Problem Solving Outline, Flow Chart and Systems Diagram

A. Define

1. Flow Chart

2. Systems Diagram

3. Point out similarity--advantages of systems diagram

B. Distribute and discuss sample Flow Chart found on page 52 .

C. Give example of Big Track Problem-SQ. and how flow chart is implemented in writing proced.res.

III. Introduce Class to Big Track

A. What is Big Track? Big Track is a programmable toy which contains a computer.

B. How do you program Big Track?

1. Distribute Big Track keyboard handout.

2. Total number of commands you can input. You can input a total of 16 commands from keyboard.

C. Big Track commands--Demonstrate

1. Test--Program which enables you to check to insure Big Track is in working order. Test will:

   Have Big Track move forward 2 lengths;
   fire three times; wait 3 to 4 seconds;
   then back up 2 lengths to its starting
   position.

2. CLR. Clear Key will remove all previous instructions from memory. You should always press Clear Key before programming new instructions.

3. GO. This command is used after all instructions have been placed into Big Track's memory. Commands will not be executed until GO is pressed.

4. Arrows. The arrows have the following functions:

   a. UP Arrow moves Big Track forward.

   b. DOWN Arrow moves Big Track backwards.

   c. RIGHT Arrow is used for right turn.

   d. LEFT Arrow is used for left turn.

5. Units. Big Track units are as follows.

   a. Using UP or DOWN arrow followed by 1 will move Big Track one length.

   b. Using RIGHT or LEFT arrow followed by 1 will make Big Track rotate 6°.

6. Hold. Hold command tells Big Track to wait a specified period of time. Each unit = one tenth of a second. The command for Big Track to wait 3 seconds, procedure will be:

   CLR

   ↑ Move Forward

   3 Length 3 units

   HOLD Wait

   30 3 seconds

   ↓ Move Back

   2 Length 2 units

7. RPT. Repeat Command. The RPT command is used when you wish to repeat a previous instruction. This command can only be used once in a program.

Example. Refer to flow chart prepared for Big Track doing a square procedure:

CLR

2 ↑

15 →

2 ↑

15 = 10 commands

2 ↑

15 →

2 ↑

15 →

GO

Using RPT Command

CLR

2 ↑

15 →

8 Commands

2 ↑

15 →

RPT

4 ↑

GO

8. CLS. Clear Last Step. Allows you to clear last step if an error occurred in the command.

9. CK. Check. Allows you to check if last command was input correctly.

IV. Activity--Program Big Track to do the following:

1. Move forward 39"
2. Make a right turn of 90°
3. Move forward 169"
4. Make a right turn of 90°
5. Move forward 117"

A. Have 4 participants to a team.

B. Distribute blank flow chart to team members.

C. Have team members complete flow chart.

D. Have participants enter commands and execute program.

PROBLEM SOLVING

INTRODUCTION

Problem Solving incorporates given questions which need to be answered thru the application of proven principles. This is accomplished thru experimentation and documentation.

This implies that the major objective of problem solving is to take existing knowledge or information (data) and apply this data to achieve a satisfactory conclusion.

An important procedure to incorporate in problem solving is to examine the problem and identify manageable segments to help solve the problem. The flow chart found on page 53 is one way to achieve this objective. The flow chart helps you to identify procedures to implement in solving the problem.

The purpose of a flow chart is to identify the manageable segments of a given problem. A closer examination of the segments will show:

I. Problem

The problem identifies the need for your effort. Identification of a problem enables you to begin establishing procedures you will use to achieve your objective.

II. Nature of Problem

Once problem has been identified, this segment establishes parameters (guidelines) you will work to. This position on the flow chart helps establish procedures to follow. The objective of this segment is to identify the standards which have to be met. Working to standards assists individual to design procedures which can be implemented.

III. Preliminary Statement

Identifying nature of the problem and establishing procedures enables you to write the goal you wish to achieve, and how components will work.

IV. Identify Sub Problems

This segment may identify additional problems. These problems may be identified when writing the preliminary statement or when listing procedures. They can also be the result of incomplete procedures. It may also be that no additional problems are observed.

V. Applying Procedures

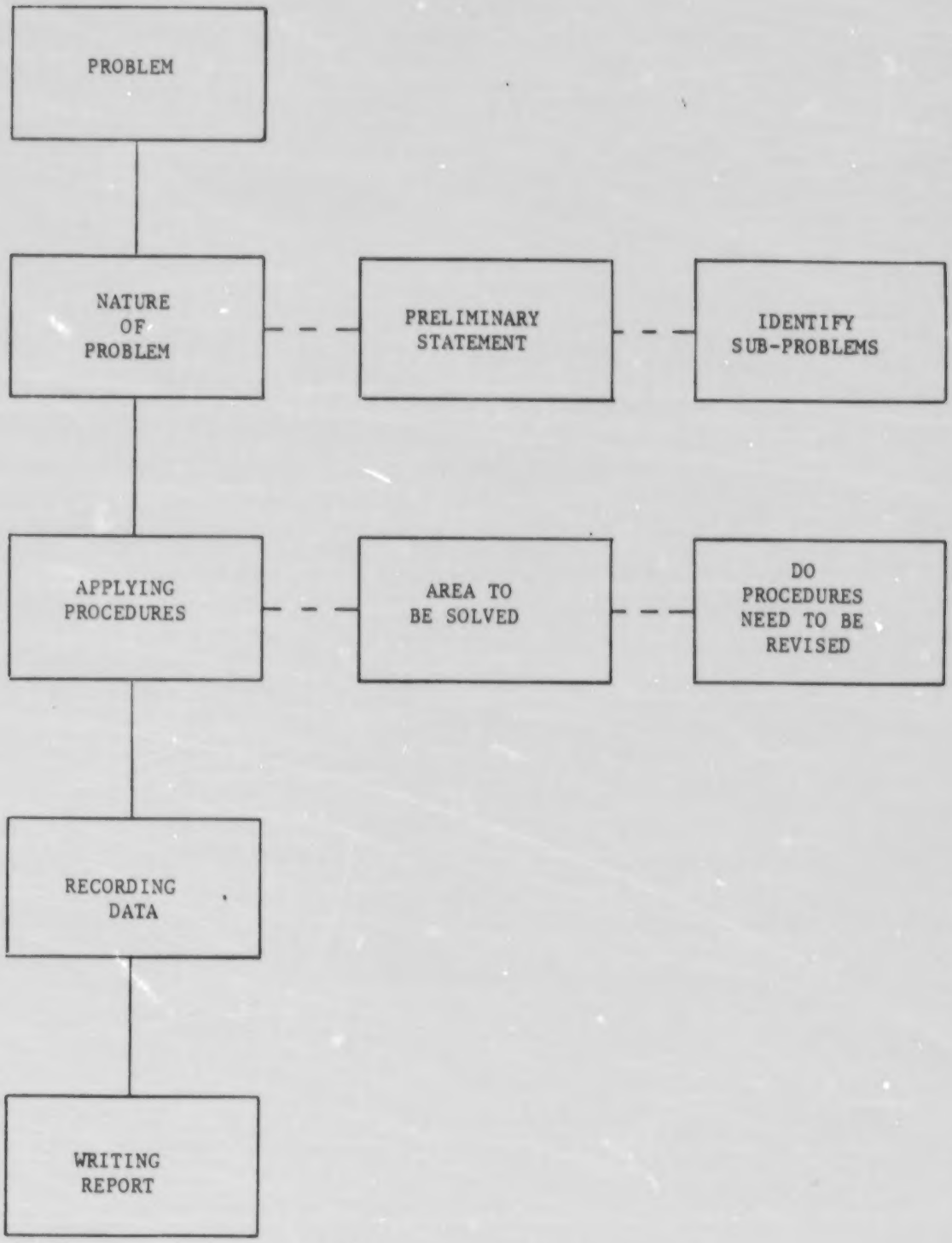
This segment of the flow chart permits testing of procedures listed. It is the implementation of concepts to solve the problem.

VI. Recording Data

This flow chart position is an on-going process. The need to record data is found in each of the preceding steps. Recording of data helps you document your solution and establish a data base. This data base can serve as a reference manual when establishing procedures for future problems.

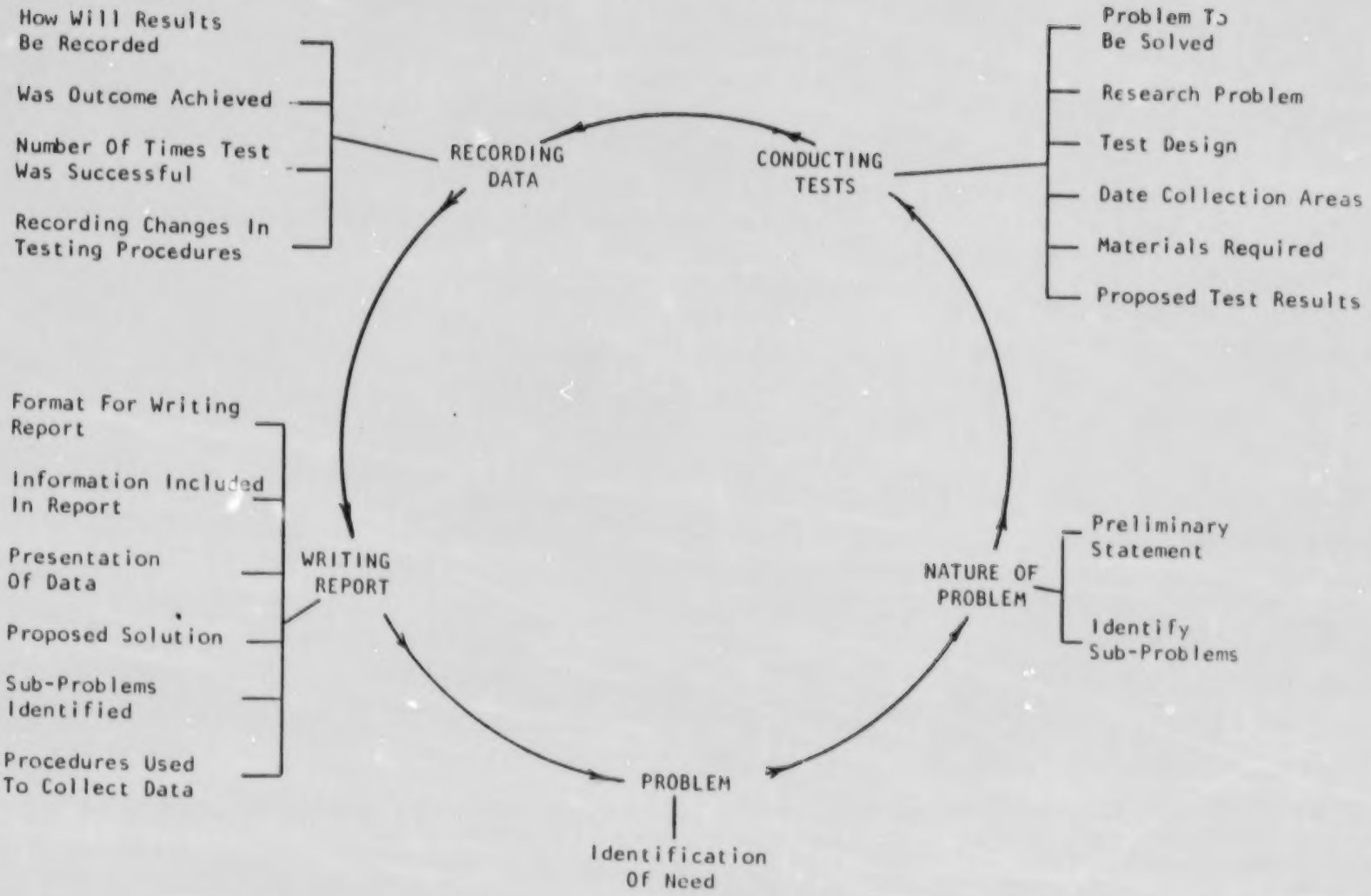
VII. Documentation

Documentation is writing a report which explains procedures implemented to achieve the goal in solving your problem. This information for writing your documentation is found in all of the above segments.


PROBLEM
NATURE OF PROBLEM
PRELIMINARY STATEMENT
IDENTIFY SUB-PROBLEMS
APPLYING PROCEDURES
AREA TO BE SOLVED
DO PROCEDURES NEED TO BE REVISED
RECORDING DATA
WRITING REPORT

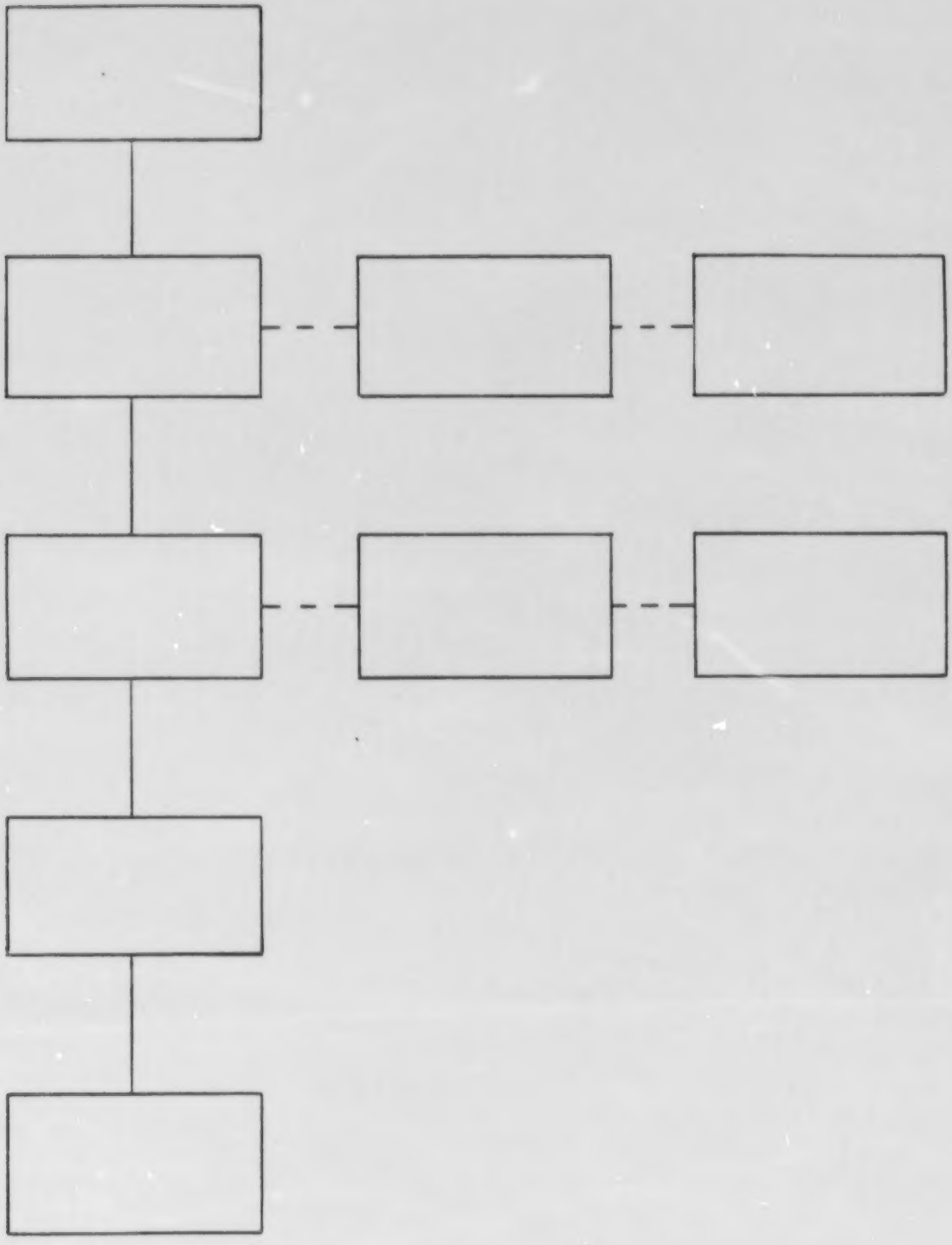
BIG TRACK FLOW CHART
OBJECTIVE: Have Big Track Make a Square

Problem - Program Big Track to make a square.
Nature of Problem
How large a square do I want to make?
Preliminary Statement
This program will enable Big Track to make a square which measures 26" on each side.
Sub Problems
How far will Big Track travel for each unit input? How will I program Big Track to make 90° turns?
Applying Procedures
What commands are required to achieve goal?
Area to be Solved
How many units do I input for length and angle? How many degrees are in 1 unit?
Do Procedures Need to be Revised
Check accuracy of units. Check procedures outlined Is there a more efficient way to input units?
Record Data
List steps taken as you proceed to solve problem. Record results.
Writing Report
Review steps taken and write documentation of problem.


How Will Results Be Recorded
Was Outcome Achieved
Number Of Times Test Was Successful
Recording Changes In Testing Procedures
RECORDING DATA
CONDUCTING TESTS
Problem To Be Solved
Research Problem
Test Design
Date Collection Areas
Materials Required
Proposed Test Results
Format For Writing Report
Information Included In Report
Presentation Of Data
Proposed Solution
Sub-Problems Identified
Procedures Used To Collect Data
WRITING REPORT
NATURE OF PROBLEM
Preliminary Statement
Identify Sub-Problems
PROBLEM
Identification Of Need

61

62



INTRODUCTION TO VOCATIONS
HIGH TECH FOCUS

IN-SERVICE LESSON PLAN

SESSION V. BANK STREET WRITER

Objective: As a result of participating in class session, participants will:

List procedures to use when using Write and Edit Modes and save their file using Transfer Mode.

Reference: Bank Street Writer Software and Documentation

I. INTRODUCTION

Bank Street Writer is a writing tool which assists teachers and students in developing skills in storage and retrieval of data for future use. It is also an excellent tool for introducing individuals to a more advanced word processing program.

II. TUTORIAL DISKETTE

A. Have 2 individuals to a system.

B. How to insert tutorial diskette in the disk drive—Back side of diskette. Explain how tutorial is to be used.

C. How to "Lock In" menu selection.

D. Boot-Up System.

E. Use of open and closed Apple keys.

III. ENTERING TEXT

A. Using Bank Street Writer to enter text

1. Discuss monitor screen

a. Where Mode appears

b. Where Text appears

c. Where Instructions appear

2. Reading instructions for write mode.

3. Have class enter text.

4. Use of Return Key.

B. Typing upper and lower case letters.

1. Caps lock key in "Off" position.

2. Entering text similar to typing. Use shift key to capitalize letters.

3. Scrolling - Text moves off screen when text screen is full.

IV. CURSOR MOVEMENT

A. Reading top of screen

B. Edit mode

1. Menu

Erase	Move	Find	Transfer
Increase	Move Back	Replace	Mode

2. Making selection

C. Use of Arrow Keys to move cursor.

V. EDITING TEXT

A. How to get into edit mode.

B. Making corrections.

C. How to capitalize letters.

VI. ERASE AND UNERASE COMMANDS

A. Selecting menu selection

1. With spacebar

2. With open and closed Apple keys.

B. Erasing Text

1. Move cursor to beginning of text to erase.

2. Press Return.

3. Move cursor down 1 line. Text to be erased is highlighted.

4. Writer asks if you are sure Y/N.

5. Answer Prompt.

C. Unerase

1. Highlighted text you selected to erase appears on screen, when you select Unerase from menu.

2. Asked if you wish to erase text that is highlighted. If answer is YES, text is replaced in text; if NO, text is deleted from text.

3. Unerase command must be used immediately after erase command is used.

VII. MOVING TEXT

A. Selection of move text from menu.

1. Use of open and closed Apple Keys to make selection.

2. When move highlighted press Return.

3. Move text to beginning of text you wish to move. Press Return.

4. Move cursor to desired position in text you wish to move. Text becomes highlighted. Press Return.

5. Respond to question to move text.

B. Moveback

1. Select command from Edit menu. Press Return.

2. Respond to question, on top of screen, when highlighted text appears.

3. Moveback selected immediately after move.

VIII. FIND & REPLACE

A. Select find from edit menu. press Return.

B. Answer questions on top of screen.

1. Type word you wish to find.

2. Press Return.

C. Replace text

1. Select Replace command from edit menu. Press Return.

2. Answer questions at top of screen.

3. Type word to find.

4. Type word to replace word identified.

5. Go through text and make corrections.

IX. INITIALIZE BLANK DISKETTE

A. Use of DOS 3.3 System Master to boot-up system.

B. Remove system master and place blank diskette in drive.

C. Make sure Caps Key is in locked position.

D. Enter Hello Program.

```
10    Print "This Hello Program created by"
20    Print "(your name) on (date)"
30    END
```

E. Type INIT HELLO, press Return.

X. ACTIVITY

A. Have class open a book and practice entering text.

B. Advise class next session will include an assigned text to enter, utility program, and use of transfer mode to:

1. Save a file.

2. Load a file.

3. Print a file.

INTRODUCTION TO VOCATIONS
HIGH TECH FOCUS

IN-SERVICE LESSON PLAN

SESSION VI. BANK STREET WRITER--Transfer Mode, Utility Program, Printing a File.

Objectives: Upon completion of session, participants will:

1. Save and load a file.
2. Describe utility file.
3. Print hard copy.

Reference: Bank Street Writer Software & Documentation

I. INTRODUCTION

A. Review

1. Write mode.

a. Entering text

b. Cursor movement

2. Edit Mode

a. Menu

b. Making selection

II. TRANSFER MODE

A. How to implement from Edit mode.

1. Select transfer mode from menu. Press Return.

2. Transfer Mode menu.

a. Retrieve. This command will enable you to load a file from your disk. You will be asked the following:

Do you want a Catalog Y/N.

Type name of file to retrieve _____.

Press Return.

b. Save. This command enables you to save your file. A password is required for you to load (retrieve) your work.

c. Init Command. Initializes diskette.

d. Delete. Delete file from diskette.

e. Rename. Give file a new name.

f. Print Draft. Copy to check document for errors, additions, deletions.

g. Print Final. Final copy after all changes have been made.

h. Quit. Exit program.

i. Clear. Enables you to clear screen when you wish to start something new.

III. UTILITY PROGRAM

A. Define. Utility program enables person to:

1. Change how program communicates with printer and disk drive(s).

2. Lists names and passwords of files.

3. Converts standard Apple text files to Writer files and vice versa.

B. Utility program

1. Use of Utility Program.

2. Booting-up Utility Program.

a. Insert program.

b. As program is booting, press ESC. Following will appear:

DO YOU WANT TO:

1. CHANGE SETUP ITEMS

2. DISPLAY PASSWORDS

3. CONVERT WRITER FILE

4. QUIT

WHICH ONE (1 - 4)?

C. Select No. 1 - and demonstrate how to check items and change set-up of items.

IV. ACTIVITY

A. Distribute assignment found on page 63 .

B. Have participants type assignment.

1. Discuss not changing any errors while typing.

2. When finished entering text, have participants save text.

3. Exit from Write mode to Transfer mode.

4. Select save and follow instructions to save file on their diskette.

a. Password

b. File name

V. PRINTER COMMANDS

A. Select Print Draft from menu.

1. Follow instructions and print file.

2. Check file for errors; make notations on copy.

B. Exit Program

1. Boot-up system. Press ESC Key while booting.

2. Utility Program on screen

3. Make selection (1).

4. Change margin settings

5. Change top and bottom settings.

6. Change line settings.

7. Exit using Quit Command.

C. Retrieve File

1. Make corrections

2. Enter command to print Final

3. Print Copy

Different writing styles are used for different purposes. The following each require a different kind of writing:

_____a newspaper article

_____a comic book

_____a politician's speech

_____a romance

Each of the selections below is written in one of the above styles. Decide what each selection sounds like. Then finish one story, using the same style throughout.

(a) My fellow grasshoppers, I want to talk to you today about a grave danger. Our food supply is running low. We must pull together to meet this crisis. Now our neighbors, the ants, have been hoarding their food all summer. We must try to convince them to share their food with us.

(b) Today, three pigs are resting safely in a brick house at 1649 Sty Road. Their landlord, B. B. Wolf, destroyed two other houses they had been living in.

(c) Rapunzel leaned on one hand, staring out the tower window. Her long golden hair spread out on the floor behind her, glistening in the sunlight. Her blue silk dress perfectly matched the blue of her sad eyes. She sighed, "The worst thing about this tower is that I never meet any boys!"

(d) POW! As the beanstalk burst through the clouds...

"What a strange place!" Jack said. "Everything is SO BIG! I wonder what kind of person could live here?!"...

Suddenly...THUD! THUD! THUD!

**********END**********

INTRODUCTION TO VOCATIONS
HIGH TECH FOCUS

IN-SERVICE LESSON PLAN

SESSION VII. INTRODUCTION TO BASIC

Consultant: Mr. Paul Jones

Objectives: Upon completion of class, participants will:

1. Define following terms:

a. Program	e. Syntax	i. List
b. Basic	f. Constant	j. Run
c. Variable	g. Loop	k. GOTO
d. Flow Chart	h. If-Then	l. Statement

2. Explain output of a given program.

References:
1. Introduction to Applesoft Basic - MECC
2. Computer Literacy, "A Hands-On Approach;" Arthur Luehrman, Herbert Peckham; McGraw Hill
3. Introduction to Basic Programming; Shelly and Cashman; Anaheim Publishing Company

I. INTRODUCTION

A computer program is a set of instructuons written in code, to the computer, which are arranged in a logical sequence. This code enables the computer to perform various tasks.

II. BASIC LANGUAGE

BASIC is a computer language which allows a person to communicate with a computer. The term BASIC means Beginners All-Purpose Symbolic Instructional Code. The language (Code) is a series of statements.

A. Define Statement. A statement is a command given to the computer and includes:

1. Line Number
2. Reserved Word
3. Parameter

Line Number identifies statements.

Reserved Words are specific operations. You instruct the computer to perform, i.e., PRINT, LET, GO TO, IF-THEN, END.

Parameter. Identifies limits for each statement.

B. Example of Line Statement

Line No.	Reserved Word	Parameter
10	PRINT	"HELLO"

C. Define Syntax

1. Use of comma
2. Use of semicolon

D. Define Constant

1. Numeric
2. String

E. Mathematical Operations

1. * Multiplication
2. + Addition
3. / Division
4. - Subtraction
5. Have class input following in computer

```
10    PRINT    23+7
20    PRINT    2*3.14159*5
30    PRINT    22/7
```

F. Sample Program. Have class input following program and explain syntax and what program will do.

```
10    PRINT
20    PRINT    "(Your Name)"
30    PRINT    "Age;" Your age
40    PRINT    "Is a computer programmer"
```

G. VARIABLE

1. Define Variable. A variable is a quantity that may change values while program is running.

2. Types

a. Numeric

b. String - How to identify

H. LET STATEMENT - Assigns a variable or operation to another variable. Example - Have class input following:

```
10    LET     A = 9
20    LET     B = 3
30    LET     C1 = A + B
40    LET     C2 = A - B
50    LET     C3 = A * B
60    LET     C4 = A / B
70    PRINT   C1, C2, C3, C4
80    END
```

I. INPUT STATEMENT. Allows you to assign value to variables while the program is executing, by prompting the user for a response.

J. LOOPS AND DECISIONS: GO TO AND IF-THEN

1. Define Loop

2. Example. Have class input following program that computes square of a number, and explain.

```
100    PRINT      "Input any number"
110    INPUT      Number (NUM)
120    SQR  =     NUM * NUM
125    PRINT      "The Square is"; SQR
130    END
```

3. Incorporating GO TO statement in loop

```
100    Let NUM = 1
110    SQR = NUM * NUM
120    PRINT "The Number Is"; NUM
```

```
130     PRINT "The Square Is"; SQR
140     Let NUM = M + 1
150     GO TO 110
160     END
```

Explain how loop functions in above.

4. Controlling Loop with If-Then statement. The If-Then will perform instruction only if the statement is true.

   a. Format for If-Then statement

      Line No. If (Expression) then (Instruction)

   b. Incorporating If-Then statement in above program.

```
100     Let NUM = 1
110     SQR = NUM * NUM
120     PRINT "The Number Is"; NUM
130     PRINT "The Square Is"; SQR
140     Let NUM = NUM + 1
150     If NUM    101 then 110
160     END
```

Explain how If-Then statement is a time saver in writing program.

5. For Next Statement - sets parameters

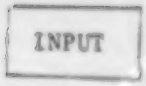
K. Data Statements - Format

   Line No. Data Item 1, Item 2,....Item N

III. FLOW CHART

A. Define. A flow chart is listing the order in which statements are executed.

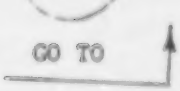
B. Flow Chart Symbols

1. 

2.

3.

4.

5. 

6. END

7.

IV. ACTIVITY

Have participants input the following program which will list the names of all students in their class. Then have class explain how program will be executed.

```
100   PRINT   "Number of Students?"
110   INPUT   NS
120   FOR I = 1 to NS
130   PRINT   "Student Name?"
140   INPUT   NM$(I)
150   NEXT    I
160   PRINT   "Which Number?"
170   INPUT   N
180   PRINT   NM$(N)
190   END
```

INTRODUCTION TO VOCATIONS
HIGH TECH FOCUS

LESSON PLAN

SESSION VIII. APPLE WRITER PRO DOS

Objectives: At conclusion of in-service participating teachers will:

1. Describe and define data line.
2. Enter text and make corrections in text, using appropriate commands.

Reference: Apple Writer II Pro Dos Software and Documentation

I. INTRODUCTION

A. Define Apple Writer Pro Dos.

B. Compare to Bank Street Writer

1. Apple Writer--All editing is done on edit screen.
2. Bank Street Writer--Use different modes to perform various operations.
3. Review

a. Text Mode

b. Edit Mode

c. Transfer Mode

d. Print Mode

II. FORMATTING DISK FOR APPLE WRITER

A. Preparing volume so files can be entered on disk.

B. Procedures:

1. Insert master disk into drive.
2. Start system.
3. Boot-up commands menu by pressing

Control O [O]

4. Type I from menu.
5. Select slot no.--When enter slot (1-7) appears on screen, Type number 6. Disk Drive card located slot 6 on Apple IIe.

6. Drive identification--When command enter drive (1 or 2) Type 1 if one drive, 2 if you have two drives.

7. Entering volume name--Identifying name by assigning title (name).

8. Confirm your configuration - Type Y.

III. BOOTING-(STARTING) APPLE WRITER PRO DOS SYSTEM.

A. Place Apple Writer Pro Dos master disk into disk drive, and turn on computer.

B. Remove master disk after system is started.

IV. THE EDITING DISPLAY.

A. Data Line.

1. The first column < or > determines whether Apple Writer searches forward or backward through a document.

a. > Forward

b. < Backward

2. V Column 3--Control character insertion mode is on when the column is on, Control characters are put in document as memory and are treated as text. If not on control characters are executed as commands.

3. R in Column 3--Replace mode is on. Enables you to replace characters by writing over incorrect characters.

4. Z Word wrap around is on.

5. MEM: Shows how many characters of memory are available for document in memory--2500 characters 1 page.

6. LEN: Shows the total number of characters of your document in memory.

7. POS: Shows current cursor position in number of characters from beginning of paragraph.

8. TAB: Shows the current cursor position in number of characters from last return.

9. FILE: Displays the name of document in memory.

B. Data Line Options [ESC]

1. Display full data line.

2. Display current Tab Position.

3. Can turn data line completely.

C. Give demonstration for each data line command.

V. EDITING COMMANDS.

A. How to get help--Discuss procedure and terms.

1. Insert Apple Writer Master Disk in Disk Drive.

2. Command [OPEN APPLE] - [?] -Hold down open Apple while you press ?.

(CTR)
Help screen menu.

a. Command summary

b. Cursor movement

c. Upper/lower case change

d. Delete/retrieve text

e. Tabs

f. Glossary

g. Saving files

h. Loading files

i. Find/replace text

j. Print format commands

Press Return to Exit
Enter Your Selection (A - J) cursor

3. To return to help screen menu Type C.

4. To leave help screen and resume editing Type E.

VI. ENTERING TEXT

A. To enter text begin typing at the cursor.

B. Moving cursor

1. With Apple Keys and Arrow Keys.

2. Control B - Beginning of text.

3. Control E - End of text.

VII. INSERTING TEXT--PROCEDURES

A. Use left Arrow Key and move cursor to character (position) where you wish to insert text.

B. Type word or phrase you wish to insert.

C. Writing over text (replacing) - [R] Replace text mode.

D. [R] Exit replace mode.

VIII. DELETING TEXT

A. Letters - Delete Key after cursor has been moved to correct position. Using Delete Key will erase letter from memory.

1. Open Apple right arrow can also delete letters; will not remove from memory.

2. Open Apple left arrow can retrieve characters deleted with open Apple right arrow.

B. Words

1. Move cursor to right of word to be deleted--check direction of Prompt in Column 1. Should be

2. [D] Control D for Delete.

3. [W] Control W to delete word.

C. Paragraph

1. Move cursor to end of paragraph.

2. Set Direction Prompt

a. [D] - Control D

b. [X] - Control X deletes paragraph.

3. If last paragraph

a. [E] - Control E - End

b. [D] - Control D - Delete

c. [X] - Control X - Delete paragraph

d. [B] - Control B - Beginning of text.

IX. CLEARING SCREEN

A. [N] Control N - New

B. Prompt at bottom of screen.

X. MOVING TEXT

A. Moving paragraphs

1. Move cursor to end of paragraph you want to move.

2. Control D to change prompt.

3. Control X to delete paragraph.

4. Move cursor to end [E].

5. Change direction prompt [D].

6. [X] text moved.

XI. SAVING & LOADING TEXT

A. Saving text.

1. [S] Control S - Save.

2. Left hand bottom of screet [S] are:

a. Type /

b. Name of volume MYDATA

c. Type /

d. Memo name of file.

e. Return

/MYDATA/MEMO 1

XII. FINDING & REPLACING TEXT (RACQUET TO RACKET)

Procedure:

A. [B] Control B - Beginning of text.

B. Use find command - [F].

C. Lower left screet [F]IND:

1. /
2. Racquet
3. /
4. Racket
5. /
6. a - All occurrences

/RACQUET/RACKET/a

XIII. PRINTING

Using printer procedures:

A. [P] Control P

B. Lower left of screen [P] Print/Program

C. Type ? Set Values

D. Print/Program Commands on screen.

E. Print NP

XIV. ACTIVITY

A. Distribute menu found on Page 77.

B. Have participants do the following:

1. Delete letters
2. Make corrections in spelling.
3. Move paragraph
4. Save file
5. Load file

MEMO TO: John Court, Sales

FROM; Tom Ace, Finance

SUBJECTS: Never Miss Racquet Introduction

DATE: December 4, 1985

As you know, the new Never Miss racquet is a breakthrough in tennis technology. The microelectronic radar device built into the frame of the racquet enables evan a novice player to accurately position the racquet for a raturn volley. The implications of this breakthrough for the ga7e are totally.

The attached spreadsheet models represented the gross profits from the soles of the new Never Miss racquet under different prjcing structures. Since you and your sales force must sall this racquet, please review these models and the grapho that go with an eye to which seems most feasible given the current market. Marketing has alterted the Advertising Department to gear up for a really big kickoff for this revolutionary racquet. They will be calling a meeting later this week to present their ideas.

INTRODUCTION TO VOCATIONS
HIGH TECH FOCUS

IN-SERVICE LESSON PLAN

SESSION IX. MECC MATERIALS

Consultant: Mrs. Elizabeth Carter

OBJECTIVES: Upon completion of class, participants will:

1. Identify MECC Programs for use in their classroom.
2. Describe how to use MECC Handbook.
3. Describe how to utilize documentation materials.

References: MECC Library

I. INTRODUCTION

A. Define MECC--Minnesota Educational Computing Corporation

B. MECC Products

1. Classroom courseware
2. Support documentation

II. MECC BOOK FOR THE APPLE

A. Index for MECC Apple Courseware and other educational computing products.

B. Classroom courseware indexes.

1. Curriculum Area Index
2. Grade Level Index

C. Description for each MECC program listed in book by:

1. Subject area
2. Grade level
3. Reading level

D. How descriptions assist teachers use of description in selecting program.

1. Check lists for:

(a) Grade level

(b) Above grade level

(c) Below grade level

2. Identifying materials for individual classes.

III. DEMONSTRATION

A. Select program

B. Boot-up system to run program

C. Discuss program Menu

D. Selection of program file

E. How to get program description

F. Documentation (manual)

1. What is included in documentation

(a) Learning goals

(b) How to use software

(c) Activities for each file

(d) Teacher aids

IV. ACTIVITY

A. Have class search through MECC handbooks

B. Teachers select programs suitable for

1. Their subject area

2. Grade level

C. Have teachers load and run programs they selected

D. Assist teachers in use of documentation

V. Procedures for ordering MECC materials

A. Thru Media Center in their building

B. Forwarded to Pat Ratta at Fallon Center

Please note exceptions to any statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1. The objectives of this course have been presented and explained clearly.				15	1
2. The materials presented in this course were sufficient to achieve the stated objectives.				14	2
3. The stated objectives have been fully achieved.				15	1
4. The materials presented in this course deepen my insight and expand my knowledge of instructional computing.			1	4	10
5. Emphasis was placed on the understanding and application of materials and skills.				11	5
6. I will be able to apply the knowledge and skills gained in this course to my classroom.			2	9	5
7. The course staff encouraged interaction among participants.				8	7
8. The pace of the course presentation was appropriate to the level of my competency in the topic. If "not", it was above/ below my level of competence.		1	2	10	2
9. The course staff presented the materials in a meaningful and stimulating way.				11	5
10. More courses in the topic area should be conducted. What courses?				8	7

11. I have implemented following units in my classroom:
    a. _____
    b. _____
    c. _____

12. Comments:

_____

_____

_____

PROJECT SUMMARY

GOAL A: 75% of Participating Teachers will:

OBJECTIVE 1.1.

Field Experience--100% of participating teachers participated in a 2-day field experience. Their field experience check lists may be found in the product booklet which accompanies this report. The community based organizations which cooperated in the project are:

- Edwards Engineering
- BMW of North America
- GAF Corporation
- Hoffman LaRoche
- Union Camp Corp.
- Paterson News
- Word Co. Word Processing
- ATI Ind., Chem Spray Division
- Sloan Kettering
- Internal Revenue Service
- Bergen Record
- Oakleaf Corporation
- National Institute for Blind
- Foundation for the Handicapped
- Pilot Metal Fabrications

The following high tech career areas were explored by teachers:

- Computer Operator Entry Level
- Data Processing
- Technical Service Manager
- Graphic News Artist
- Systems Manager
- Operations Manager
- Programmer Trainee
- Reporter
- Systems Analyst
- MIS Programmer
- Programmer Analyst
- Programmer Trainer
- Project Manager
- EDP
- Technician
- Word Processor Operator

OBJECTIVE 1.2. Identify a minimum of two existing units they will modify for practical application to high tech.

100% of participating teachers have submitted 3 curriculum units which address high tech in their classroom. The teachers have implemented the MECC material which is available in the Wayne Schools. These materials are available in the product booklet which accompanies this report.

OBJECTIVE 1.3. Adapt or Adopt in their curriculum two computer literacy education activities or concepts from other sources.

Participated teachers have incorporated computer literacy education activities from other sources. Some of the participants have made purchases with their own funds. Requests have been made for commercial materials. These requests have been approved and materials have been ordered with local funds. A list of Public Domain Computer Programs is being compiled by the Project Director. These materials will be available in September 1985.

GOAL B: 35% of Grade 8 students will elect Introduction to Vocations Program at the 9th Grade level for further career exploration in career cycles.

The incoming 9th Grade students to the two senior high schools total 582. Of this total, 177 students or 32.88% elected the Introduction to Vocations Program at the 9th Grade level.

The selection of this program occurred after all 8th Grade students participated in the ACT-Career Planning Program. The ACT Program assists students, parents, and counselors in course selection by providing data in the areas of their interests and abilities.

Thru the efforts of teachers in the science department, a total of 150 students wrote career reports in fields of High Tech Careers. The students were required to include interests, working conditions, aptitudes and physical capacities in their report.

Shadowing was implemented at the middle schools. At George Washington a business education teacher conducted the activity; at Schuyler-Colfax three participating science teachers conducted the shadowing activity. A total of 190 students participated in the activity.

GOAL C: 95% of program students in Grade 8 will complete profile sheet developed in Wayne, which relates to High Tech career/occupational choices regarding: temperament, interests, working conditions, aptitudes, physical capacities.

The participating teachers of 8th Grade students achieved this goal.

GOAL D: 20 Students will be recommended to participate in the C.R.E.A.T.E. Program.

Twenty three students have been recommended to participate in the C.R.E.A.T.E. Program. The students will gain experience thru training in the following: computer repair, documentation writing, modification of existing programs.

The students recommended to participate in this after school program are:

Karyn Dabaghim
Lori Auritus
Rikki Dayal
Dave Gorab
Tracy Parish
Stacy Isaacson
Toni Vaccarino
Aaron Salkin
Jeanne Paduch
Mike Elstein
Allison Brpur
Keri Gascoyne
Phil Chang
Bill Boyce
Seth Balliro
Mike Hemsley
Lori Intini
Mackie Sheckfee
Augusta Bhatt
Amy Roschell
John Asmi
Kevin Forman
Pat Bailey

SEX BIAS/SEX STEREOTYPING

All activities in the project were designed to address career fields for all students with no mention of male or female careers.

CONCLUSION

The Introduction to Vocations High Tech Focus was successful because of the following:

1. The participating staff made a total of 32 visitations to community based organizations. These visitations made teachers aware of an environment which the majority had not experienced. Seeing practical application of their individual disciplines has provided an understanding of how to develop curriculum units which require problem solving abilities.

2. The class of 16 teachers, in all but two instances, had never used a computer. They were timid and apprehensive at the start. However, by the conclusion of the in-service, they would investigate various programs on their own. Another aspect was that participants could use documentation materials correctly, and they began to write their own documentation materials.

3. Three major areas were presented to participants. These areas included Word Processing, Programming in Basic & Logo, and Data Bases. Teachers implemented the three areas in their respective areas. This has inspired teachers and has identified a need for further workshops to help teachers build on their present knowledge.

4. The seed money has helped the Wayne schools develop sequential activities in computer education. It has also sparked an interest in teachers requesting additional training in the field.

5. The project has provided the motivation for establishing special interest groups for the various disciplines.

6. Availability of field trips for middle school students.

7. A computer has been purchased for training students in the Employment Orientation Program. The need was identified by a special education teacher who participated in a field experience where handicapped individuals are using computers as part of their work.

8. Implementing Logo as an introduction to computer assist design.

9. Willingness on part of participating teachers to continue their training in High Tech areas.

RECOMMENDATIONS

As a result of working with teachers on a project, the following recommendations are submitted.

Schools are established to meet the needs of the culture of which they are a part. The commitment and cooperation demonstrated during the project by the business community was admirable and outstanding. However, a project of one year in duration can only be the beginning. It is recommended that the following steps be considered to ensure the continued success of High Tech education for our students.

1. Establishing procedures for teachers to work in High Tech areas during the summer months.

2. Business organizations work closely with educators to identify units of instruction which will help young people better prepare for next step options.

3. Provide released time for teachers to continue exploring the work environment as part of on-going staff development.

4. Establishing a network where private enterprise will assist local schools by donating High Tech equipment.

5. As Project Director, to continue working with teachers, assisting them to develop activities for classroom use.

MANAGEMENT PLAN

GOAL A: 75% of participating teachers will:

OBJECTIVES	ACTIVITIES	PERSON RESPONSIBLE	TIME
1.1 Develop and use at least one Introduction to Vocations High Tech Unit during the year	In-Service Program--10 Sessions	Project Director Business/Industry Personnel	11-1/84 to 4-30-85
Field Experience Identify tasks done in business/ industry which relate to curriculum and existing career cluster program	2-Day field experiences Orientation to be included in in-service	Field Experience Coordinator Business/Industry	11-1/84 to 4-30-85
1.2 Identify a minimum of two existing units which they will modify for practical application to High Tech	Career Cluster Program Field Experience	Project Director	During in-service training 10-1-84 to 1-15-85
1.3 Adapt or adopt in their curriculum two computer literacy education activities or concepts from other sources	Same as above including MECC software	Project Director	Throughout school year

MANAGEMENT PLAN

GOAL B: 35% Grade 8 students elect Introduction to Vocations Program at the 9th Grade for further Career Exploration in Career Cycles

OBJECTIVES	ACTIVITIES	PERSON RESPONSIBLE	TIME
As stated above.	ACT Exploring You activity: Interests and Abilities.	Guidance and participating Staff	11-15-84 to 4-1-85

MANAGEMENT PLAN

GOAL C: 95% of program students in Grade 8 will complete Profile Sheet developed in Wayne which relates High Tech Career/Occupational Choices to:

OBJECTIVES	ACTIVITIES	PERSON RESPONSIBLE	TIME
1.1 Temperaments	In-service training	Project Director	During school year
	Career cluster exploration, student shadowing, career reports, career choice(s)	Students, participating staff, parents, business/industry	
2.1 Interests	Same as above	Same as above	Same as above
3.1 Working Conditions	"	"	"
4.1 Aptitudes	"	"	"
5.1 Physcial capacities	"	"	"

MANAGEMENT PLAN

GOAL D: 20 Students will be recommended to participate in C.R.E.A.T.E. (Career Related Experience Applying Technical Education)

OBJECTIVES	ACTIVITIES	PERSON RESPONSIBLE	TIME
1.1 Teachers and counselors will recommend students to participate in work-environment at technical center	Student performance in high tech activities	Students	During school year
	Identify high interest students	Teachers & counselors	"
	Recommend students to Project Director	Teachers & counselors	"
	Students complete CREATE application see page 31.	Project Director	"

BEST COPY AVAILABLE

APPENDIX B

TO: All Middle School Teachers

FROM: Mr. T. Huff, Assistant Superintendent of Schools

DATE: June 6, 1984

RE: Introduction to Vocations Staff Training Proposal

We are submitting a proposal for Introduction to Vocations High Technology, Grades 6-8. Included in the proposal is staff training for 15 interested staff. The participants in the in-service can opt for 2 in-service credits or $11/hour stipend.

If funded, the in-service would begin about October 1, 1984 and include 10 sessions, concluding by January 15, 1985. Class sessions would begin at 3:30 and end at 5:30 P.M., at Fallon Educational Center. Another component of the funding provides for teachers to participate in business/industry field experiences for 2 days. The arrangements for business sites will be arranged by Career Ed staff. Substitute salaries are also included in the proposal.

If you are interested in participating in the Introduction to Vocations High Technology Program, please complete the form below and return to Mr. P. Ratta, Fallon Educational Center by June 22, 1984.

I am interested in participating in the in-service program.

I would prefer: _____ In-Service Credit

_____ Stipend @ $11.00/Hr

I prefer: _____ Monday

_____ Tuesday

_____ Wednesday

_____ Thursday

_____ Friday

NAME _____

GRADE & SUBJECT _____

SCHOOL _____

APPENDIX C

TO:

FROM: Pat Ratta

DATE: September 17, 1984

RE: Introduction to Vocations Staff Training

A survey was conducted in June at which time you expressed an interest to participate in the Introduction to Vocations Staff Training Program, if the Proposal was approved for funding.

We were notified that funding was approved. The survey indicated the majority of participants selected Tuesday to attend in-service classes. The first session will be conducted Tuesday, October 9, 1984, Room 12, Fallon Educational Center, 3:30 P.M.

If your schedule prohibits you from attending classes on Tuesday, please call me on Ext. 253. This will allow me to identify other teachers to participate in the program.

Your survey response indicated your preference for _____ Stipend _____ In-Service credit.

Looking forward to see you October 9.

APPENDIX D

WAYNE CAREER EDUCATION PROGRAM

MEMO TO: Pat Ratta

FROM: Jean Molendyke

DATE: 4/26/85

RE: "High Tech" Course Prof. Day

On Friday, April 26th, I visited the Foundation for the Handicapped in Wayne. The Foundation employs 55 workers who are handicapped. Their age range is from 16 - 60 years old. Since its inception 12 years ago, the Foundation has adopted a philosophy of independence for the handicapped. The trustees maintain that the handicapped adults can work and function on their own and therefore accept no outside financial assistance, such as federal subsidy, etc. All proceeds and profits go back into the program. Most worker and business contracts come from word of mouth. The Foundation is a worksite, not a training or instructional center.

The Foundation has recently acquired a computer. They use the IBM-PC with an Epson printer and an AMDEK visual display. They use the computer primarily for inventory and have purchased software programs to assist them. One physically handicapped man in a wheelchair was using the computer at the time of our visit. Since the Foundation goes through thousands and thousands of pieces each week in its assembly production, the computerized inventory was very helpful. The director told me that it was especially useful when the contracting businesses called in.

The implications for my program are varied and interesting. The students at the EOP workshop could enter their piecework each day and gradually compare their monthly, weekly, etc. progress on different operations and machines. The production could be graphed and help increase motivation. We could also use the computer for inventory, as the Foundation does.

We have already used the computer for academic work. For the past two years the students have had a weekly class on the Apple computer at Schuyler. They are proficient at selecting software and running the selected program. They are encouraged to communicate directly with the computer without teacher intervention. Even though these students are developmentally disabled, they are part of the new generation which is not "computer phobic" and who enjoy a user-friendly relationship with their computer.

APPENDIX D

Wayne Education Association

WAYNE VALLEY HIGH SCHOOL
551 VALLEY ROAD
WAYNE, NEW JERSEY 07470
PHONE - 694-2605

September 26, 1984

Mr. Pasquale Ratta
Pro. Cood. Career Ed.
Wayne Board of Education
50 Nellis Drive
Wayne, N.J. 07470

Dear Pat:

Thank you for sending me a copy of your proposal regarding inservice credits to be granted for "Introduction to Vocations High Tech Focus." The W.E.A. has some concerns as to how the participants in the program were selected. Should not all teachers be given an opportunity to participate in this important program?

Please get back to me on your reaction to my concerns.

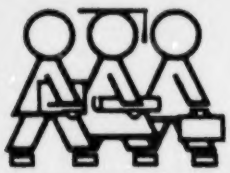
Sincerely,

Charles T. Tucker

Charles T. Tucker
President
Wayne Education Association

CTT:sd

CC: Mr. D. O'Grady
Mr. T. Huff
Mr. T. Hudak



Wayne Career Education Program

50 Nellis Drive, Wayne, New Jersey 07470 — (201)694-8600

Thomas Hudak
Director of Career Education
David H. O'Grady
Superintendent of Schools

October 3, 1984

Mr. Charles Tucker, President
Wayne Education Association

Dear Charlie:

I received your letter dated September 26, 1984 in which you expressed that the W.E.A. had some concerns as to how teachers were selected to participate in the "Introductions to Vocations High Tech Focus" Program.

I am in complete agreement with you that all teachers should be given an opportunity to participate because of the importance of this concept. The Career Education staff would be extremely happy to make this program available to all interested Wayne teachers.

However the grant received from the N. J. State Department of Vocational Education was for implementation at the Middle School, Grades 6-8, which restricted participation to staff members at that level.

Attached please find the memo that was sent to the staff at Schuyler Colfax and George Washington Jr. High Schools inviting all teachers who were interested to participate.

A total of 18 teachers responded. It is our intent to make the program available to all respondants.

A copy of the proposal is available for review in the Career Education office located in the Fallon Educational Center.

Sincerely,

Pat Ratta

Pat Ratta

PR:dl
cc: Mr. D. O'Grady
Mr. T. Huff
Mr. T. Hudak

Wayne Education Association

WAYNE VALLEY HIGH SCHOOL
551 VALLEY ROAD
WAYNE, NEW JERSEY 07470
PHONE - 694-2605

October 4, 1984

Mr. Pasquale Ratta
Pro. Good. Career Ed.
Wayne Board of Education
50 Nellis Drive
Wayne, N.J. 07470

Dear Pat:

Thank you for your response to my letter regarding the Introductions to Vocations High Tech Focus Program. I believe you have handled the arrangements perfectly. I like particularly the idea that you allow for volunteers, and that you have the option of receiving inservice credit or a stipend.

I wish you every success with your program.

Sincerely,

Charles T. Tucker
President
Wayne Education Association

CTT:sd

CC: Mr. D. O'Grady
Mr. T. Huff
Mr. T. Hudak

BEST COPY AVAILABLE

Board of Education
WAYNE TOWNSHIP PUBLIC SCHOOLS
WAYNE, N.J.

OFFICE ADDRESS DRIVE
WAYNE N 07470
694-8600
AREA CODE 201

THOMAS A. HUFF
ASSISTANT SUPERINTENDENT
CAS Exec. Secy.

Charles J. Hunziker
CAS Chairperson

COUNCIL FOR ADVANCED STUDY

October 4, 1984

Mr. Pasquale Ratta
Fallon Education Center

Dear Mr. Ratta:

At its meeting of October 2, 1984, the Council reviewed your request for three (3) inservice credits for district project, "Introduction to Vocational High Tech Focus." After discussing the requirements for participation, the Council awarded two (2) inservice credits, or $11/hour stipend, for this course, which coincides with Mr. Huff's memo to all Middle School Teachers on June 6, 1984.

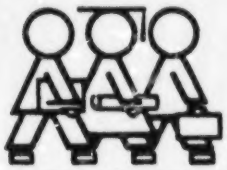
At the conclusion of this course, please send a list of the names of those who have completed the requirements so that accreditation can be issued.

Sincerely,

Charles J. Hunziker

Charles J. Hunziker
Chairperson

pw



Wayne Career Education Program

50 Nellis Drive, Wayne, New Jersey 07470 — (201)694-8600

Thomas Hudak
Director of Career Education
David H. O'Grady
Superintendent of Schools

October 22, 1984

Mr. John Zalarick
Marketing & Communications
Bergen Record
150 River Street
Hackensack, N. J. 07602

Dear Mr. Zalarick:

An integral component of the Wayne Career Education Program is to establish a School/Business Partnership. This Partnership helps educators update their curriculum to make students aware of current work environments and job requirements by incorporating practical application to classroom learning. This can occur by having teachers visit various business organizations.

Schools need to begin as early as possible to offer classroom lessons which help students become aware of various career areas and how to prepare for these careers. A knowledge of how classroom learnings are applied will help students become aware of the work environment.

A proposal "Introduction to Vocations-High Tech Focus" Grades 6-8 was submitted last spring to the New Jersey Department of Vocational and Career Preparation, and a grant was received by the Wayne Schools. A major component of the proposal was for Wayne teachers to visit business organizations and become knowledgeable in high tech implementation. Our teachers will then return to their respective schools and adapt curriculum units to include information learned on their visitation.

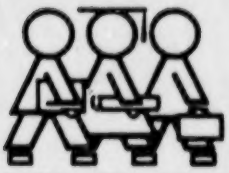
A request is being made for Mr. Fred Roth and Mr. Boyd Christie to visit the Record at a date which is convenient for you to explore how the newspaper industry incorporates up-to-date technology.

Your consideration of this request would be appreciated.

Sincerely,

Pasquale Ratta
Project Director

PR:dl



Wayne Career Education Program

50 Nellis Drive, Wayne, New Jersey 07470 — (201)694-8600

Thomas Hudak
Director of Career Education
David H. O'Grady
Superintendent of Schools

November 12, 1984

Mr. Dwayne Kotsen
Group Manager
Hoffman-LaRoche
340 Kingsland Road
Clifton, N. J. 07110

Dear Mr. Kotsen:

Thank you for arranging a visitation for four Wayne teachers to observe computer applications at Hoffman-LaRoche on Wednesday, November 28, 1984.

As we discussed the purpose of this field experience is to enable educators to observe high tech applications in a business environment. When they return to their classrooms teachers can modify their experience to the level of their students.

As per your request the names of the teachers who will be visiting November 28, 1984 are:

Ms. Joyce Leone
Mrs. Carmina Posthumus
Mr. Raymond Miller
Mr. Richard Vendoritis

Arrangements have been made for teachers to car pool. They will arrive at the Kingsland Road entrance at 9:00 A.M.

Sincerely,

Pat Ratta

Pat Ratta
Project Director

PR:dl

APPENDIX D

Wayne Career Education Program

50 Nellis Drive, Wayne, New Jersey 07470 — (201) 694-8600

Thomas Hudak
Director of Career Education
David H. O'Grady
Superintendent of Schools

April 24, 1985

Mr. Charles Hunziker, Chairperson
Council For Advanced Study
Wayne Public Schools
Wayne, N. J. 07470

Dear Mr. Hunziker:

Last Spring a funding proposal was submitted to the Division of Vocational Education, State Department of Education. The title of the proposal was "Introduction to Vocations High Tech Focus" Grades 6-8, and it was approved for funding. Included in the proposal was an option for participating teachers to:

1. Receive a stipend
2. Receive in-service credit

The following teachers chose option No. 2:

Judith Bowne	Schuyler Colfax Jr. H. S.
Salvatore Buda	" " " "
Linda Kazimir	" " " "
Joyce Leone	" " " "
Robert Van Zweden	" " " "
Sharon Newberger	George Washington Jr. H. S.

I am requesting the Council For Advanced Study to award two (2) in-service credits to the teachers listed above. They have completed the requirements outlined in the proposal which included:

1. Attendance at ten (10) in-service sessions which met from October 9, 1984 to December 18, 1984

2. Visitation to two (2) business companies and completion of Field Experience Forms, which relate to career awareness of requirements for entry in high tech employment areas

3. Writing three (3) curriculum modules adapting present course material to computer literacy

A copy of the Final Report will be forwarded to your committee when it is submitted.

Sincerely,

Pat Ratta

Pat Ratta

BEST COPY AVAILABLE

TO: C. Posthumus
R. Miller
L. Kazimir

FROM: Pat Ratta

DATE: April 26, 1985

RE: Field Experience Trip, May 17, 1985

Arrangements have been made for you to visit Union Camp Corp., Wayne, N. J. The person in charge of your visit is Mr. Ralph Flemming.

Union Camp is located at 1600 Valley Road in Wayne. Your arrival time is 9:00 AM. When you enter the Union Camp facility, follow signs to Visitor Parking Area. Report to receptionist in Lobby and ask for Mr. Ralph Flemming. You will be requested to sign in, and the receptionist will contact Mr. Flemming.

Attached for your use is Field Experience Checklist for you to complete and forward to me. A copy has been forwarded to Mr. Flemming.

Please contact me on Ext. 253 with the name of your substitute which is required for my records.

Hope you have a worthwhile visit.

Wayne Career Education Program

50 Nellis Drive, Wayne, New Jersey 07470 — (201) 94[illegible]

[illegible]
Director of Career Education
[illegible]
Supervisor, Vocational School

April 26, 1985

Mr. Joe Holmes
Computer Center
American Cyanamid Corp.
697 Rt. 46
Clifton, N. J. 07015

Dear Mr. Holmes:

This letter is to confirm the visitation to your center for five Wayne teachers. The date of their visit is May 7, 1985. The teachers who will be visiting your facility are:

Mrs. J. Roberto
Mr. L. Novak
Mr. T. Drabik
Mr. B. Christie
Mr. F. Roth

The purpose of their visit is to become aware of career areas related to high tech work environments. Each teacher is required to complete the attached form.

Thank you for your cooperation allowing the above named teachers to visit your facility. The teachers have been notified to arrive at 9 A.M.

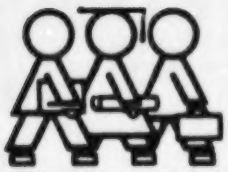
Sincerely,

Pat Ratta

Pat Ratta

PR:dl
Enclosure

BEST COPY AVAILABLE



Wayne Career Education Program

50 Nellis Drive, Wayne, New Jersey 07470 — 201-[illegible]

[illegible]
Director of Career Education
[illegible]
Supervisor, Industrial Arts

April 26, 1985

Mr. Ralph Flemming
Union Camp Corp.
1600 Valley Road
Wayne, N. J. 07470

Dear Mr. Flemming:

This letter is to confirm the visitation to your center for three Wayne teachers. The date of their visit is May 17, 1985. The teachers who will be visiting your facility are Middle School Science teachers. Their names are:

Mrs. Carmina Posthumus
Mrs. Linda Kazimir
Mr. Raymond Miller

The objective of their visit is to become aware of career areas related to high tech work environments. Each teacher is required to complete the attached form.

Thank you for your cooperation allowing the above named teachers to visit your facility. The teachers have been notified to arrive at 9:00 AM.

Sincerely,

Pat Ratta

Pat Ratta

PR:dl
Enclosure

BEST COPY AVAILABLE

TO: J. Roberto
L. Novak
T. Drabik
B. Christie
F. Roth

FROM: P. Ratta

DATE: April 26, 1985

RE: Field Experience Trip, May 7, 1985

Arrangements have been made for you to visit the American Cyanamid Computer Center, Clifton, N. J. The person in charge of your visit is Mr. Joe Holmes.

The Center is located at 697 Rt. 46, Clifton. Mr. Holmes provided me with the following directions:

> Take Rt. 46 East. Shortly after passing Lexington Chevrolet is Broad Street Exit. Travel to bottom of hill where there is a traffic light. Continue thru intersection at light. You will come to a guard. Request to see Joe Holmes. Guard will direct you to Lobby where receptionist will have you sign in. The receptionist will contact Mr. Holmes.

Attached for your use is Field Experience Checklist for you to complete and forward to me. A copy has also been forwarded to Mr. Holmes.

Please call me on Ext. 253 with the name of your substitute which is required for my records.

Hope you have a worthwhile visit.

M E M O

TO: In-Service Participants

FROM: P. Ratta

DATE: May 1, 1985

RE: Data for Final Report

Attached please find Data Collection Eorm for completion. This information is required for my Final Report to the Division of Vocational and Career Preparation, N.J. State Department of Education.

The shadowing activity is not implemented in the same manner in each school. Therefore, it would be appreciated if the Science Teachers who have 8th grade students gather this information.

The goals and objectives of the project were distributed at the first In-Service Session. Hopefully, these will be of assistance to you in completing the attached form.

I have also attached a sample of the type of information that would be helpful to me for writing the Final Report. If you have any questions or need assistance completing the form, please call Ext. 253 and I will make arrangements to sit with you and complete the form. If there is no answer on 253, please call Ext. 216, or 227 and leave a message.

It would be most helpful if you could return the completed form to Fallon Educational Center by May 19, 1985.

Thank you.

CC: Mr. T. Hudak
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